AMERICAN AGRICULTURIST.

Agriculture is the most healthy, the most useful, and the most noble employment of man.—WASHINGTON.

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THE

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AND

FARMERS' CABINET

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TO POSTMASTERS AND OTHERS.

UPON an examination at this office of the May number of the "American Agriculturist," printed in New York, at 121 Fulton street, it is decided, under the approval of the Postmaster General, that said publication is a newspaper, within the intent and meaning of the 2d and 16th sections of the Post-Office act of Congress, of 3d March, 1845, being in its superficial dimensions not more than 1,900 square inches, and "conveying intelligence of passing events" in that department of the affairs and business of society to which the publication is devoted.

S. R. HOBBIE,
First Dpt. P. M. Gen'l.

Post-Office Department, Contract Office, May 28th, 1849.

WORK FOR JULY—NORTH AND WEST.

General Remarks.—A portion of the work omitted to be done in June, or impracticable to be performed from the state of the climate, or the backwardness of the season, as recommended in our last number, may be accomplished early this month, such as *sowing millet and Indian corn for soiling cows, sowing buckwheat, weeding and hoeing field crops, cutting grass and curing hay, cutting and threshing wheat, &c., &c.*

Cutting Bushes and Destroying Weeds.—All useless bushes and briars, growing about your pastures and fields may be cut this month, or grubbed up by the roots and burnt, as well as all filthy and pernicious weeds.

Compost Heaps.—This month and the next two is the proper time for collecting materials for manure. Marsh and swamp mud, peat, the scrapings of roads, lanes, ditches, and fence sides, mold and leaves from the woods, marsh grass, the sweepings of your dwelling, refuse vegetables, the slops and suds of your kitchen, wash room, or chamber, mix-

ed with oyster-shell lime, and the contents of your barnyards, pig pens, and hen houses, comprise the very best elements for a compost manure. It is preferable that the heaps be formed under a shed, or covered with a thick layer of sod or mold.

Draining Wet Lands.—Any wet fields or pastures of stiff clay, that are water-logged during a considerable portion of the year, may be *deeply* drained during this month and the next two, while the ground is dry. By this means, they will be deprived of their surplus moisture, and converted into friable molds.

Sowing Turnips.—The sowing of the flat varieties of the turnip, intended for the kitchen and the feeding of stock during the winter and spring, should be performed in Canada and the northern parts of the United States by the middle of this month; but in Virginia, Maryland, Pennsylvania, New Jersey, the southern parts of New York, and in the western states, the time may be prolonged until the middle of August, and in some places, even until September. If sown earlier, they are not so tender nor so finely flavored; and if sown later, they will not generally attain a full growth.

It has been proved by long experience in this country, that old sod, well rotted, or newly-cleared land, recently burnt over, produces the largest and the finest-flavored roots. Those who do not possess lands of this description, and design to enter into field culture on a large scale, must render their ground as rich as possible, by the addition of manure. An acre of ground will require from 250 to 400 lbs. of Peruvian guano; 15 to 20 bushels of bone dust; 20 to 30 bushels of wood ashes; or from 500 to 1,000 bushels of fine, well-rotted barnyard manure.

In the cultivation of turnips, there are four things which ought to be carefully observed: 1st, unless the land be "folded" or burnt over, it should be reduced to a finely-pulverized state. This may be accomplished by deep, rough plowing just before the freezing of the ground; 2d, to force forward the young plants into a rough leaf, in order to secure them from the attack of flies. This may be done by soaking the seeds for 36 hours in a solution of 1 lb. of guano to 10 gallons of water; or a gallon of water infused with ¼ of an ounce of chloride of lime; 3d, to have the ground clean and free from weeds before the seeds are sown, and watching the growth of weeds afterwards, and eradicating them before they choke the crop; 4th, to keep the ground constantly loose and open about the plants, by stirring it when the weather is dry. The oftener the ground is stirred the better, provided you do not disturb the roots of the plants.

Plowing for Winter Wheat.—As this month advances, it will be time to think of breaking up your ground for sowing winter wheat. Let it be remembered that "deep plowing is one of the farmer's best help." Before wet lands are deeply plowed, however, they should be thoroughly drained.

Topping Indian Corn.—The topping of corn is believed by many to be an idle waste of time, (unless cured and housed for fodder, as is practised in the eastern states,) and injures the quality of the grain.

Kitchen Garden.—Cabbages may be transplanted for late crops. Melons, squashes, and pumpkins should be carefully hoed, and kept free from weeds. Egg plants, peppers, and tomatoes should be planted out, if not done before. Transplant celery in trenches. Sew cucumbers for pickles; also, Lima and kidney beans, small salad, carrots, turnips, and spinach for fall and winter use. Collect such seed vegetables as have come to maturity.

Fruit Garden and Orchard.—Budding may be performed on all northern fruit trees the latter part of this month. Give to cattle or swine all fruit that is decayed or punctured by insects, to prevent future broods. Keep the ground loose around grapevines and trees.

Flower Garden and Pleasure Grounds.—Bulbous and tuberous roots, such as tulips, hyacinths, &c., can now be taken up, and carefully put away for planting in the fall. Herbaceous flowering plants can be transplanted from the seed bed to the border. Hedges may still be clipped. Keep walks and borders clear of weeds.

WORK FOR JULY, SOUTH.

Working Cotton Fields.—As a general rule, give your cotton crop its last working this month. Some seasons, the weeds are too large to extirpate with the plow without injury, even before the 10th. Keep the fields clean, whether your intention is rotation, in your future crops, or cotton to succeed cotton. It will save labor next year.

Tobacco Fields.—Pay particular attention to your tobacco plants, by topping them, or nipping off the buds with the aid of the finger and thumb nail, as soon as they have from twelve to fourteen leaves, or about knee high. Take care not to destroy the small leaves near the buds; for, if the land be good and the season favorable, the very top leaves will, in a short time, be nearly as large, and ripen quite as soon as the lower ones, whereby, two or four more leaves may be saved; thus obtaining, from sixteen to eighteen leaves instead of twelve or fourteen. As the topping of the plants is essential to promote the growth and equalize the ripening of the leaves, this operation should be commenced the instant the bud shows a disposition to go to seed, and should be followed immediately by removing the suckers as fast as they appear.

Shucking Corn for Fodder.—The blades from early-planted corn may now be stripped for fodder. Let the shuck, or husk, on the ear, first change from a green to a whitish cast; then tie a handful, or so, to itself, and thrust the end of the tie between the ear and stalk. The stalks should not be broken down, as this would require more time to strip off the blades; besides, there will be a gain in the end; for it will sooner be secured from rain. Let the ears be well cured before stacking.

Plowing between Late-planted Corn, Potatoes, &c.—Late corn will need plowing this month, as well as late plantings of potatoes and vines, (squashes,) and the earth drawn towards them with a hoe.

Cutting Millet.—Millet grass should be cut when just beginning to turn, if intended for feeding, and treated in the same manner as oats.

Improving Pastures for Stock.—If your leisure will admit, grub up bushes, cut down saplings, and deaden greens for calf pastures, to be sown in September or October, with rye. Plowing will not be necessary, as the fall of the leaves will cover the ground, and the grain spring up, and give a fine

winter bite. Make artificial pools in your pastures for watering your stock, if there are no natural ones.

Prepare for the Cotton Harvest.—As the cotton-gathering season is rapidly approaching, prepare baskets and sacks for picking, as your leisure will admit, particularly wet or rainy days.

Making and Collecting Manure.—This may be attended to as directed for the north and west.

Kitchen Garden.—Sow beets, carrots, cabbages, endives, shalots, dwarf and pole beans, lettuce, (shaded situation,) mustard, tomatoes, (cover the seed,) melons, cucumbers, squashes, Indian corn, peas, turnips, (in new ground,) radishes, (long and short,) split onions, cauliflower, and roquet. Frequently stir the earth around your plants in dry weather; water them in the evening. Prepare your ground for removing plants that are coming on.

Fruit Garden, Shrubbery, &c.—Preserve white or yellow cling-stone peaches, and wild and domestic plums as soon as ripe. Destroy suckers about trees.

PROFITS OF POULTRY RAISING.

Dr. H. S. Chase, of Woodstock, Vt., makes the following statement in one of our exchanges, on the Management and Profits of Poultry:—On the 27th of March, 1848, I purchased four hens and one cock, and kept them until the 15th of November, when I killed them. During that time, I received three hundred and eighty-six eggs, as the result of their laying. I fed them on grain I purchased—seven pecks of corn at 75 cents per bushel. The account will stand as follows:—

386 eggs, average price 1 cent each, - -	$3.86
7 pecks corn at 18¾ cents per peck, $1.31	
1 peck oats - - - - - 0.12—	1.43
Net profit of four hens for less than eight months, - - - -	$2.43
Average number of eggs laid by each hen, - - - - -	96

My family is very small and will account for the limited scale on which I tried the experiment. The fowls had the liberty of a barn in which they were constantly kept, excepting about an hour before sunset, when they were let out. A part of the floor was taken up, however, that they might have constant access to gravel. Corn, lime, and water were kept in vessels, where they could help themselves at any time. I occasionally gave them grass, chickweed, &c., which they ate greedily.

SALE OF MR. VAIL'S SHORTHORNS.

We had the pleasure of being present, June 13th, at the sale of a part of Mr. Vail's fine herd of shorthorn cattle, at his farm, two miles above Troy. There was a very respectable attendance from the neighborhood, the adjoining states, and Canada. The animals were generally in fine condition, and commanded fair, but not extravagant prices. On many of them, the bidding was quite spirited. Three young bulls, each about twenty months old, brought respectively, $135, $147.50, and $150. Of those on the catalogue, 20 head, and these mostly young aninals, brought $2,015, and four calves, from two to seven weeks old, sold for $142. 50, making an aggregate amount of $2,157.50. This result, though far from flattering, shows spirit on the part of our farmers, and considering the apathy which has for some time existed on the subject, may be considered a favorable augery for the future. We are glad to notice that five choice, young animals, two bulls and three heifers, were purchased by our enterprising friends, the Messrs. Burgwyn, of Hillside, Hallifax, N. C., whose interest, we trust, will be decidedly promoted, by the improvement of their herds from these thorough breds. Judge Jessup and his friends, from Montrose, Pa., also bought three fine animals, to continue an improvement, already successfully commenced with former importations.

We observed, Mr. Vail did not offer any of his thorough-bred *Bates stock*, though most of those sold had one or more crosses from this importation. We suppose these are held in reserve for future breeding and higher prices, which present appearances renders probable he will hereafter obtain.

DICK'S ANTI-FRICTION CHEESE PRESS.

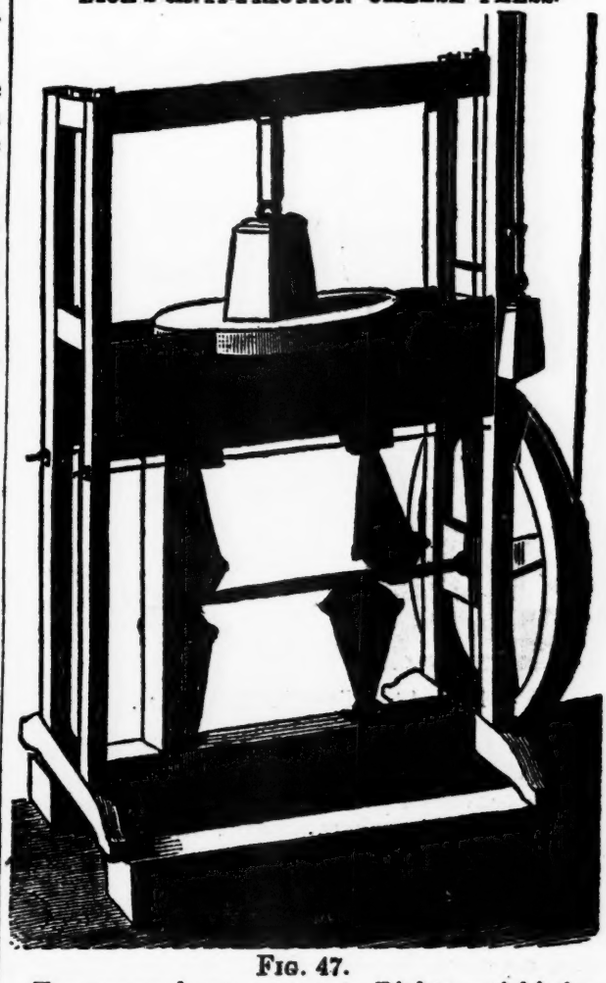

Fig. 47.

The annexed cut represents Dick's anti-friction power for pressing cheese. By its use, the whey is entirely removed with half the labor usually required. The power may be increased to any extent without danger to the press, as the working portions are made of iron, and consequently are capable of sustaining the force that may be applied.

This implement is a perfect plat-form scale, so that the cheese can be accurately weighed before it is removed—a matter of great convenience and importance to the manufacturer, as well as to the purchaser, who can judge very nearly of its weight, as marked, when taken out of the press.

THE WATER RAM.

This valuable, self-sustaining pump, first invented by Whitehurst and improved by Bolton, both of England, and subsequently brought extensively into notice by Montgolfier, of France, about the middle of the last century, has been suffered to remain in comparative obscurity and neglect, till within the past few years. But the utilitarian spirit of the present age, which is ever busy in securing new inventions, as well as bringing into use such discoveries of a preceding age as are worthy of attention, has seized upon this as one capable of contributing largely to the convenience of mankind. It has recently been much improved in its principles and manner of construction, and is now adapted to the wants of many of our farmers, manufacturers, and other citizens, in supplying water for farm houses, barnyards, irrigating gardens or fields, supplying hydrants, railroad stations, and large establishments, hotels, asylums, &c., with running water. We have given some explanations of it in preceding volumes of our journal, but for the purpose of more particularly describing and bringing it within the comprehension of all our readers, we subjoin a fuller account of it than has heretofore appeared.

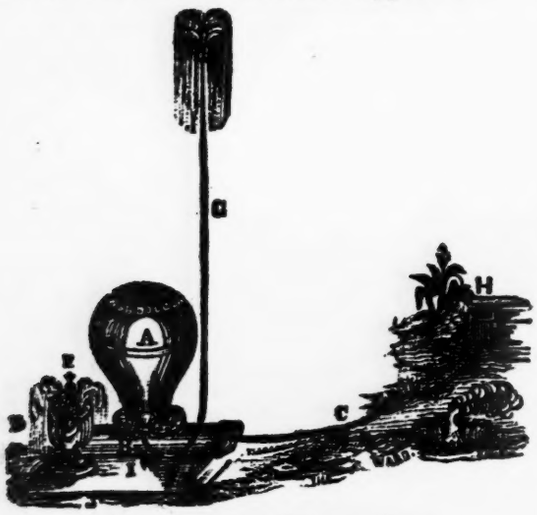

FIG. 48.—THE WATER RAM.

Explanation.—H is the brook, spring, or fountain; C, the supply, or drive pipe; G, the pipe which conveys a part of the water from the drive pipe to the place where wanted; A, the air chamber of the ram; E, top of brass valve; D, water wasting through the valve by which the power of the ram is secured.

The object to be accomplished in its use, is to raise a part of the water from a spring or running stream, to a height above the point from which it is taken, by the power contained in a portion of the same stream which is thus suffered to escape. The relative proportions between the water raised and wasted, is dependent exclusively upon the relative height of the source of supply, and that to which it is required to be raised, and were it not for the friction of the water in the machine, these could be ascertained with the same certainty as the relative distance from the fulcrum of the weight and poise in the steelyards or patent balances.

a general rule, about 20 per cent., or one fifth of the water may be assumed for the friction of the water and machine, and the remainder of the power may be considered as expended in raising the fluid for use. Thus, if the ram be placed under a head of five feet, six gallons of water, used or wasted as driving power, may be expected to raise four gallons to a height of ten feet; or of ten gallons drawn from the spring, four gallons will be elevated five feet above the spring. If the head remains the same, for six gallons wasted, one gallon will be elevated twenty feet. (*a*)

The increase of head largely augments the power of the ram. Thus, if the head of water be ten feet, six gallons expended or wasted in power, will raise four gallons twenty feet, or one gallon forty feet above the ram, or the lowest point for the escape of the water. Thus it will be seen, that by depressing the outlet we greatly increase the power of the ram, although we raise the water from a lower point than if the head were lessened. The application of this principle, and a desire to avail ourselves of it to the fullest extent, would induce many to sink their rams to the lowest point possible, so as to secure the greatest quantity of water for use from the smallest supply. But unfortunately, the intractability of matter, frequently interposes insuperable obstacles to the application of principles. We can assign no definite limits to the works of Deity; yet if the usual materials, muscle, tendon, bone, &c., be used for an animal much larger than the mastodon, they would be found inadequate to the object, and the monster's limbs and body must fall, self-crushed from his own superincumbent weight. So, too, in works of art. The immense timber vessels constructed in Quebec, many years since, for conveying their own hulks to England, were found wholly inadequate to encounter the opposing waves, and notwithstanding their great strength, were dashed in pieces, where an ordinary vessel, or an eggshell, would have floated in safety.

In applying these remarks to the water ram, we find that on the principles of its present construction, if the head be much increased beyond ten feet, the brass valve is thrown upward against the metallic cap with so much violence, as soon to wear it to such extent as to require repair, while with a less pressure it may be used for years; and raising the water to a height much exceeding one hundred feet, may require an iron tube of great strength, where, for a less height, lead pipe of ordinary thickness will suffice. It may be that a substitute of gutta percha for one of the metallic parts of the valve, or some other mode of applying the principle, as by a rotatory, or other valve, may hereafter be adopted, which will measurably diminish one of the foregoing objections.

In considering the principle upon which the water ram works, it will readily be perceived, that it requires to be fed directly from a fountain or running stream, where the water is accumulated by a dam, and that it cannot be made to work by simply placing it in a current, however swift or violent this may be. In bringing the water from a considerable distance in pipes, they should be so large as to allow the fluid to move freely in the pipe, so as at all times to supply a constant pressure, undiminished by the accumulated friction of a long passage

through a small pipe. Or if it be objectionable to use a large pipe, let a supply fountain be made near the ram, by emptying the water brought from any distance and raised to its greatest head. The friction is thus limited to what is accumulated in the short distance in its passage from the fountain through the supply pipe. The ram will work under a fall not exceeding eighteen inches, though but a feeble power is acquired under so small a head.

These rams are made entirely of metal; and those recently constructed are of the best materials, not liable to get out of order, and are admirably designed, being light, compact, and portable. They are of several sizes, and by the use of an *adjuster* they can be adapted to streams of different capacities. The most ordinary sizes will suit springs or rivulets, which furnish any quantity of water between four and eighty quarts per minute. Where a larger quantity is required than can be supplied by one of the largest machines, it is better to increase the number of rams, rather than enlarge them on the present principles of construction.

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(*a*) In answer to the inquiries relative to the water ram, in our April number, the following has been received, which is precisely the information the public need. We repeat our request, that such of our intelligent readers, as have water rams in use, will answer the questions, as propounded at p. 121 of the current volume:—

The following is a correct statement of a water ram I have had in successful operation for the last six months:—

1. The fall from the surface of the water in the spring is 4 feet.
2. The quantity of water delivered, per 10 minutes, at my house, is 3¼ gallons, and that discharged at the ram 25 gallons. Thus nearly one seventh part of the water is saved.
3. The perpendicular height of the place of delivery above the ram is 19 feet, say 15 feet above the surface of the spring.
4. The length of the pipe leading from the ram to the house is 190 feet.
5. The pipe leading from the ram to the house has three right angles, rounded by curves.
6. The ram is of Douglass' make of a small size.
7. The length of the drive or supply pipe is 60 feet. Its inner diameter one inch.
8. The depth of water in the spring over the drive pipe is six inches.
9. The inner diameter of the pipe, conducting the water from the ram to the house, is three eighths of an inch.

I consider it very essential that the drive or supply pipe should be laid as straight as possible, as in the motion of the water in this pipe consists the power of the ram. V. H. HALLOCK.

North-East Centre, N. Y.,
April 2d, 1849.

SIX QUALITIES OF A FOOL.—By six qualities may a fool be known—anger without cause; speech without profit, change without motive; inquiry without an object; putting trust in a stranger; and wanting capacity to discriminate between a friend and a foe.—*Arab Proverb.*

NEW ARGUMENT IN FAVOR OF WIRE FENCE.

A CORRESPONDENT in the "Massachusetts Ploughman" suggests the expediency of erecting wire fences for the sides of highways, instead of stone and other kinds of fence. The snows, he thinks, would not find sufficient shelter behind it to lodge and form drifts, but would be swept on as though no fence were there, by reason of which no blocking up, nor breaking out roads would often occur, unless caused by other objects.

The suggestion is a good one; and if judiciously carried out, doubtless, those places on all highways, noted for their bleakness, where the winds blow the snow from some distance over the plains, and when any obstruction lies in the way, they are apt to accumulate to an unreasonable depth, would be kept free from drift, and consequently save much inconvenience and expense. Let the experiment be tried.

A COW DEPOT.

WE do not know a more promising business in a moderate way, for a person who would be *strictly honest*, than the establishment of a depôt, near this city, for the reception and sale of good milking cows. Scarcely a day passes in the spring of the year, that we are not asked over and over again, "Where can I get a good family cow?"

When applications have been very urgent, we have occasionally undertaken to procure an animal or two; but the result always was infinite trouble, and occasionally disappointment; for we know few things in which there is more cheating. Go to the honest farmer and he will tell the truth about his cows; but generally speaking, when this class of men get good milkers, they know their value too well to be willing to part with them, except at large prices. The only resource, then, for a supply, is among the professional cow dealers, whose character occasionally for lying and cheating, has become more notorious in this community than that of the horse jockies.

The *cow jockies'* tricks are innumerable, but as it would take a volume to relate them in full, we shall content ourselves for the present by giving the detail of a few, only, of such as are more generally practised.

They put a young calf with a cow that is either farrow or that has calved several months, and then sell her for a new milch cow. They do the same, also, to a cow that has the habit of shedding her milk, so that this vice cannot be detected when any one calls to look at her. They let the cow go a day or more without milking, which makes her bag very full, and she then looks like a good milker. After this, they only draw away a quart or two at a time, and when you call to look at her, they will tell you she was clean milked the night or morning before, when, perhaps, she had scarcely been touched for thirty-six hours. This is a very painful and dangerous trick to be practised on the poor animal, and deserves the severest reprehension. They will frequently feed the cow more or less with her own milk, which, of course, soon adds largely to the mess she would naturally give. They also feed still-house slops in large quantities. These greatly increase the quantity of the milk, but detract in an equal ratio from its quality.

Still-slop milk, is no better than *slow poison*, especially for infants and children. In addition to these cheatings, some cows will give a large mess of milk for three or four months after calving, and then suddenly dry up. They may be several years older than represented, suckers of their own milk, unruly, kickers, wild, quarrelsome, with a hundred other tricks, which no person can ascertain till he has had them in possession some time and fully tried them.

We regret to say, that some, who ought to be above such trickery, have the meanness to allow their men to sell cows, (and horses too,) which in consequence of various imperfections they do not care to keep; and this without allowing the purchaser to be informed of the animal's faults. We have occasionally heard of amusing instances of the persons employed meeting together for "a trade," and mutually cheating each other, or rather their employers most outrageously. When bear bites bull and bull gores bear in this kind of way, we have but precious little sympathy for them.

THE DOG DISTEMPER.

In looking over the May number of the Agriculturist, I find you are asked how to cure the dog distemper. As you seem to think it rather out of your line, and I can't say it is exactly in mine, I will give your friend a prescription which I have seen frequently tried and never known to fail. Here it is, and if it don't cure the dog, I give him the liberty of sending me the hind leg of the next one he loses.

Lay your dog down, and just behind the fore legs on each side and over the lungs, put on about a teaspoonful of spirits of turpentine. This will make the animal almost mad, for a while, but in forty-eight hours, he will be sound and well; so you will thus end the chapter on the dog distemper.

Should this suit you, I may at some future time, give you something else, perhaps on planting, or more probably on gardening, in which I now take the most pleasure.

P. A. Wray.

Montgomery, Ala., May 14th, 1849.

We shall be happy to hear from our correspondent often, and trust he will continue to favor us with his communications as proposed.

VALUABLE LANDS IN EASTERN VIRGINIA.

The subscriber has spent several years, in exploring Eastern Virginia, to enable him to give authentic information to all who are seeking new homes, or profitable investment. He believes the region around Petersburg, and on or near the James River, combines more advantages, than any other in the United States. It is generally healthy as has been proved by a number of families from the northern states now settled here. The climate is delightful, the winters being so mild, that plowing is seldom suspended more than two or three weeks during the winter, and stock needs very little protection. Fruits of the best and most valuable sorts ripen here a month earlier than in Pennsylvania, New Jersey, or New York, and can be sent to the northern cities by daily steamboats, in a few hours. Fish and game are also very abundant.

The soil is excellent and susceptible of very high improvement, producing from 50 to 60 bushels of corn and 15 to 35 bushels of wheat per acre. Calcareous marl is superabundant, and is believed to be the cheapest fertilizer known. The undersigned, as agent, has for sale a great number of tracts from 100 to 7,000 acres each, at $1.50 to $50 per acre. (See advertisement p. 231.) Some of them with very fine buildings, and highly improved, others with valuable water power and timber of the very best quality for lumber and ship building. A descriptive list, and any desired information, will be freely sent to all who desire it. Letters should be *pre-paid*, addressed to Petersburg, Va.

Samuel S. Griscom.

May 15, 1849

REVIEW OF THE APRIL NUMBER OF THE AGRICULTURIST.

The Quantity of Seeds usually Sown to an Acre.—This is a valuable and useful table. Yet I must protest against the "usual quantity" as too small entirely. I have no doubt that the quantity stated in the second column, should be the minium instead of the maximum, with nearly all the seeds [Belay there, Captain. Read the late English agricultural journals on this subject, then judge whether we are right or not.—Eds.] wheat and oats most particularly so. Much of the wheat that is threshed in a machine is so injured that it will not germinate. The best wheat I ever grew, I sowed three bushels to the acre. Grass seed is almost always sown too sparingly. But still, this table is a very useful one for many of your readers don't know the quantity of seed required, and I advise all of them to preserve it carefully.

Adulteration of Food, No. 10.—And still they come. Is there no end to this catalogue of wickedness? There is one consolation to me, however, about the article of *catchup*, and all its impregnations of salts of copper, &c., and that is, if anybody in this country will be foolish enough to buy and use an imported article of this kind, such stuff is fit for their food. But Mr. Editor, I pray you take the hog out of that olive oil. Faugh! Is it possible that I have been eating lard, while the religion of my ancient house forbids me to eat the meat of that unclean beast? I can forgive the admixture of oil of poppies, or even the lead and zinc, but Oh, Bah! Have I been all these years discarding hog flesh and eating lard? And then to think how much money I have paid for it, because it was put up in bottles and labelled "oil of olives." Your rule for detecting the counterfeit is very good. I should like to try the same upon the counterfeiters over a *very* "brisk fire."

Agricultural Education in Bavaria.—When shall we be able to write "the agriculture of *America* has experienced a great improvement in consequence of the system of national education which has been adopted?" It seems that it is made a part of common-school education there, to teach boys the science of agriculture, and the girls domestic economy, cookery, &c. Well! we have a different fashion here. We teach our boys to hate the farm and our girls that it is ungenteel to know aught about the kitchen. And we see the effect.

Sugar Cane on Worn-out Cotton Lands.—If all

of the refuse of sugar cane is returned to the soil, will it ever wear out? My idea is, that a crop that never ripens seed, and of such an enormous growth as the sugar cane is, if all the fibrous part of it be returned again to the land and well buried by good tillage, will continue to produce a very long time without wearing it out. How different with cotton. There are 20 or 30 bushels of the oily seed, besides the lint, taken off every year, without any return, and such treatment will wear out any land in the world. So will the process of burning up all the refuse of sugar cane. And these owners of "old cotton lands" must take care that they do not pursue a course with cane that will wear them out for that too.

Agricultural Tour, No. 4.—I only notice this to say to Mr. Robinson "go ahead," you are engaged in a good cause. I hope every body reads your letters with as much satisfaction as I do. I trust you will keep on until the end of your journey at the north, and that you may be spared the cholera in future, as we should not like to part with you yet awhile.

L. F. Allen's Agricultural Address.—How much of good sound doctrine do we find in these few columns. How long must we implore and beg our state and national legislators to give facilities to the farmers' children to get an education suited to their pursuits in life? Probably not until a majority of just such men as Lewis F. Allen shall be sent to make our laws. I pray that such a time will soon arrive. For then shall the sons and the daughters of America rise up and call her blessed. It is a disgrace to this great agricultural country that there is not, with the exception of a few private institutions like Professor Norton's and Mr. Wilkinson's, a school in the country for the education of farmers. How long shall these things be?

Queries in Regard to the Water Ram.—Turn back, reader, to p. 121, and if you have one of these invaluable machines, go to work at once and answer the questions therein asked. By so doing, you will confer a public benefit.

Southern Farming.—Are there *farmers* at the south? I thought that there existed a deadly feud against grass of all kinds; and yet here is a man trying to raise clover, and that, too, with a view to improve his estate. Why, if his land is worn out, why don't he run off to Texas, or somewhere else, no matter where? So it is "at the west;" where a great many other dunces have gone. If this singular phenomenon of a man, an *improver* of lands in Georgia, should succeed in getting a stand of clover, let him sow plaster upon it in the form of the letters of that word, and he will see the effect of it as plain as did Dr. Franklin.

Adulteration of Guano.—Is there not a little of that same adulteration a little nearer to us than England? I should like to know who I buy of, and that who should be responsible for damages. And so it seems that there are a few Yankees over the water, also. I wonder if it is not some of the old seed from whence the New-England breed originated?

Herefords vs. *Devon and Short-Horn Cattle.*—"Dat ish a very clear case, and mine shugment ish dat der blaintiff win," was the decision of a justice of the peace in the good olden time, after hearing the plaintiff state his case and the testimony on his side. Only wait a bit until Mr. Devon shoves in his long horns, and my Lord Durham brings his beef to market. But as I am a Herefordshireite, I mean to be hard to be convinced.

Value of Bones as a Manure.—"Many families in the United States waste more bones than would serve to manure the wheat they consume?" True, and it is not the dead bones alone, that they waste, but it is those which are covered with flesh—both in man and beast—wasted in the vain effort to make wheat and other grain without giving it the needful food, such as the wasted bones, and a thousand-and-one other good fertilizers they might give the land, if saved, and applied, instead of being thrown away.

Wheat Growing in Texas.—That is a tolerable big western story about wheat that weighs 70 lbs. to the bushel, which is all flour except a very light bran. The Texans need never fear that the country will be overstocked with sugar. For it is an article that the consumption of is increased in a geometrical ratio, as the price decreases. I have no means of knowing how low a price sugar can be made there; but I see your travelling correspondent, Mr. Robinson, says it can be better made at three cents than cotton at six; and if such be the case, I am inclined to think that consumers will continue to be found for it at that price, so that the market will not be so likely to be overstocked as with cotton.

Cost of Manuring an Acre of Corn.—Tell it not to the Wabashers, where the whole product of an acre would not pay for the manure. Let us see—80 bushels of corn at 10 cents, $8—minus $5.16. It wont do for that latitude. But that is the kind of country folks move to, when they emigrate "out west." Here, on the Atlantic, where every bushel of corn is worth at least half a dollar, we can afford to pay $13 an acre for manuring.

Hours of Sleep.—That's a mistake. Human nature requires more than five. A sort of dog nature may live upon that. And if the nature of my children, if I had any, required eleven, I should not think it wicked to give it to them. The next time you need two lines to fill out a column, instead of robbing us of our sleep, use these:—

> Let nature have full hours of rest!
> Of five, or eight, take which is best.

Sheep Shears.—It is a most singular thing, that, while such an article as the one here represented can be had for fifty cents such miserable things as are to be found on many farms, called sheep shears, should be continued in use by any being, except that old fellow who sheared the hog, and for which purpose they are just fit.

Origin of Soap.—What a pity all family "broils" would not go off as slick as soap. Perhaps they would if

Female Education, were of a different sort. Although I still like to hear the buzz of the spinning wheel, I agree with Amanda, in the spirit of this article—particularly in that "evening dance."

Antidote to Poison.—I wish it was as easy to prescribe a remedy for a poisoned mind as body; for the cases are more common.

Editors' Table.—Upon the subject of "National

Agriculture" and the striking out of the clause for "the organization of an Agricultural Board." you write as though you expected different things of such a set of demagogues and fighting brawlers as of late have disgraced the halls of Congress. I am glad it was stricken out; for, had the office been created, it would have been filled with anything else but a practical agriculturist. But my paper is out and so is the reader's patience I suppose, with the fault finding of your REVIEWER.

FRUIT AT THE SOUTH.

You ask in your May number whether the whortleberry, (vaccinium,) is found at the south except among the mountains. I answer, that every variety, both of flowering and bearing, is found in the greatest profusion throughout this part of the country. But for abundance, the blackberry takes the precedence of all the smaller fruits in a wild state, and is highly esteemed.

Several varieties of grapes are found in perfection in all our woods; and around every old settlement, spontaneous orchards of fine plums may be found.

The sandy subsoil of the low country is found to be unfavorable to stone fruits other than the plum. But the middle and upper sections of Carolina and Georgia produce fruits of all descriptions equal, if not superior, to those of a more northern latitude. I now have pears, apples, and quinces nearly half grown; but am not able to state what their size will be when matured. What are called baking pears flourish as well as at the north. Strawberries, also, do as well here as anywhere else; but gooseberries, raspberries, and currants will not produce well in the low country. My cherry trees bloom regularly; but five is the greatest number of this delicious fruit that I have been able to gather in one season. As an offset, however, we have the orange, the fig, and the pomegranate in great perfection. The best pine apples I have ever eaten were grown in my garden with but slight protection. Camellias grow and blossom in the gardens here as readily as any other hardy tree.

Reference is made in the same number to the sumach. Carolina produces a great abundance of this article, as well as the far-famed silk grass.

J. S.

Dawfuskie Island, S. C., May 11th, 1849.

SPARE THE BIRDS.

WE copy the following from the London Agricultural Gazette, as the facts therein stated have quite as an important bearining on the the farming community in this country as is England:—I take the liberty of predicting that, in the course of a few years, the farmers of this country will be unable to grow grain crops at all! Many years ago, the coffee plants, in the island of Madagascar, were attacked by the grakle, a well-known bird on the African coast. The grakle is an insect feeder, but having used up the supply, it betook itself in pure necessity to coffee. An edict was speedily issued and carried into effect, for the annihilation of grakles, and every bird on the island was destroyed. All went on very well for a year or two; when lo and behold, the insects and their larvæ, having the field to themselves, began to make sad havock upon the coffee plants. What was to be done? There was, no alternative but that of bringing back the grakle, which was in due season imported. The coffee planters had, however, gained something by experience, and they resolved to profit by the same; they managed to keep the grakle within bounds, and they well knew that he would do the same by the insects. And they were right. By preserving a *juste-milieu* doctrine between the two, they were enabled to grow coffee.

Now, I apprehend the farmers in the present day are much in the same position as the coffee planters of Madagascar. There has been for some time a system practised in this neighborhood of poisoning birds by wholesale; thousands upon thousands have thus been destroyed, and the system continues. Can anything, I ask, be more absurd and irrational—I had almost said stupid, than this abominable practice? I will say nothing about the beauty and harmony of living nature, I will not whisper a syllable of the goodness and beneficence and wisdom of its Great Author, for I know from experience, that against prejudice in agricultural districts such arguments have no weight; neither will I attempt to picture the horror with which I have witnessed this familiarity with poison spreading like an evil pestilence among the beautiful of God's works. But this I will say, that if the farmers of England run blindly and wilfully into the proved and fatal error of the coffee planters of Madagascar, if they permit the grub and the wireworm to destroy the crops of this country—and this they will do most assuredly if they annihilate insect feeders—then they will not only effect their own ruin, but they will inevitably cause a great national calamity.

THE DOG DISTEMPER AGAIN.

MY attention was drawn to a question asked by a subscriber, in the May number of the Agriculturist, who wished you to advise him how to cure dogs of the distemper. As you politely refer the gentleman to some dog physician, I am only too happy to assume the honor of the reference, and administer the desired relief.

The best remedy is the simplest. The distemper in the dog is an inflammation of the lungs, and the membranes which surround them. It is something akin to consumption in the human system. The stomach of the animal, in distemper, is always oppressed with a large quantity of mucus, which keeps the lungs, membranes, &c., in a state of constant irritation. Hence the severe cough which accompanies this disease—the cause removed, of course, the effect ceases; and the patient recovers. Take a handful of fine table salt; hold open the dog's mouth, pour it down his throat, and hold his jaws together until the salt is all dissolved and swallowed. In about a minute, he will vomit, and throw up great quantities of mucus, and in many cases, will throw up a little bladder, about the size of a pigeon's egg, which he should by no means be allowed to swallow again. The salt makes the dog very sick, but it only lasts a few minutes and is not in any way dangerous; this process should be repeated every other day, for a week, diminish-

ing the dose at each time. This never injures the constitution of the animal, as sulphur most certainly will, if he is exposed to wet weather. Salt is the remedy which I always use with my pointers, and it never fails.

A CONSTANT READER.

Clinton, La., May 19th, 1849.

BOGARDUS' HORSE POWERS.

We give below a cut of Bogardus' horse powers; they are made entirely of iron, excepting the lever by which they are moved. They are made for one or more horses, and are an efficient implement with as little friction as compatible with this style of machine; and they are not liable to get out of order. They can be adapted to any position of the machinery to be propelled, by extending a horizontal or vertical shaft, or by a band as may be preferred.

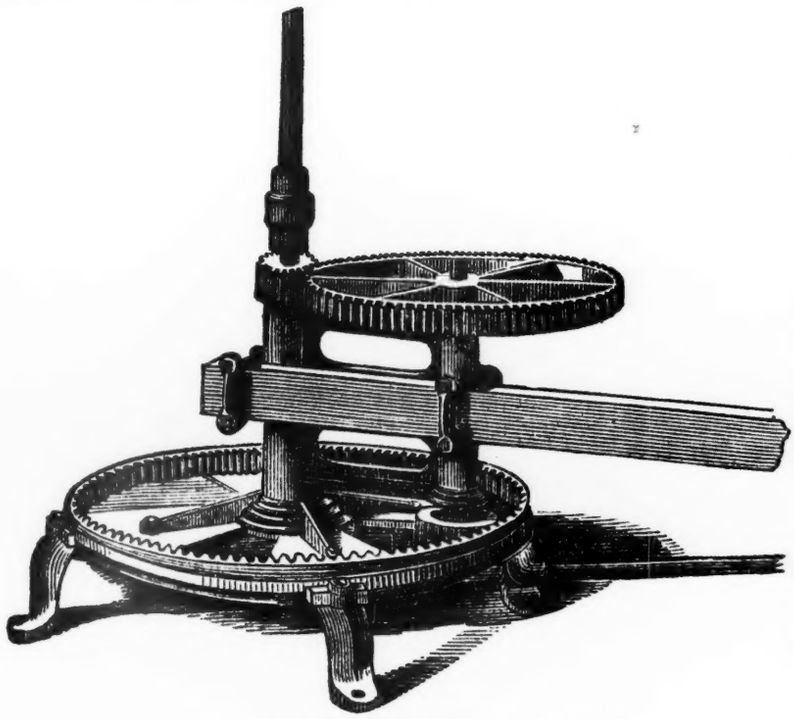


FIG. 49.—BOGARDUS' HORSE POWER.

METHOD OF EXCLUDING DRONES FROM THE HIVE.—The ancient Greeks had an ingenious method of excluding drones from the hive. It was observed that these gentlemen, (the drones,) though in no way inclined to work, would yet occasionally, on very fine days, go abroad for exercise, rushing forth in squadrons, mounting aloft into the air, and there wheeling, sporting, and manœuvering in the sun. Taking advantage of their absence, they spread a fine net over the bee entrances, the meshes of which were large enough to admit the workers, but not the drones. By this means, the latter were excluded and destroyed.

HOGS SLAUGHTERED WEST.—The aggregate number of hogs killed in the west, for the season 1848–49, is stated as at least 1,500,000, of which 27,560 were killed on the Mississippi, 72,200 on the Missouri, and 219,000 on the Illinois; the remainder in the states of Ohio, Kentucky, and Indiana.

SUMMER MANAGEMENT OF SHEEP.—No. 1.

Storing Wool.—Wool should be stored in a clean, tight, dry room. It is better that it should be an *upper* room, for reasons presently to be given, and it should be plastered, to exclude dust, vermin, insects, &c. Rats and mice love to build their nests in it, to which they will carry grain chaff and other substances, injuring much wool—and it is singular that, if accessible to the common bumble bee, numbers of their nests will be found in it. A north and pretty strong light is preferable for a wool room.

When the wool tyer removes each fleece from the trough, he places it in a long, high basket, capable of holding a dozen fleeces, and it is immediately carried to the wool room—or he piles it on the clean floor in the inclosure in which his table stands, to be subsequently carried away. In either case, the fleeces are not thrown down promiscuously, which injures their shape, but are laid regularly one above another, on their sides. In the wool room, it is laid in the same way in smooth, straight north and south rows, (supposing the light to be let in from the north,) with alleys between, in which a man can pass to inspect the wool. The rows ought not, perhaps, to be more than two deep, so that the end of *every* fleece can be examined, but as it cannot be piled up more than about four fleeces high in this way, without liability of falling, it is customary to make the rows three or four fleeces deep—laying the lower ones a little wide, so that the pile may slightly recede as it goes up. In this way, they may be piled six fleeces high. Where the character of the flock is known, or that of the seller relied on, it makes little difference. It is considered fairest to pile the fleeces without any discrimination as to quality, in the wool room.

Hoppling, Clogging, &c.—Hoppling is done by sowing the ends of a leathern strap, (broad at extremeties so that it will not cut into the flesh,) to a fore and hind leg, just above the pastern joints—leaving the legs at about the natural distance apart. Clogging is fastening a billet of wood to the fore leg by a leather strap. Yoking is fastening two rams two or three feet apart, by bows around their necks, inserted in a light piece of timber, say two by three inches in size. Poking is done by inserting a bow in a short bit of light timber, into which bit, (worn on the under side of the neck,) a rod is inserted which projects a couple of feet in front of the sheep. These, and similar devices, to prevent rams scaling fences, may be employed as a last resort, by those improvident farmers who prefer by such troublesome, injurious, and at best, insecure means, to guard against that viciousness which they might so much more easily have prevented from being acquired.

Fences.—Poor fences will teach ewes and wethers to jump, as well as rams, and for a jumping *flock* there is no remedy but immoderately high

fences, or extirpation. One jumper will soon teach the trick to a whole flock, and if one by chance is bought in, it should be immediately hoppled or killed. The last is by far the surest and safest remedy.

Salt.—Salt, in my judgment, is indispensable to the health of sheep, particularly in the summer—and I know not a flock master among the hundreds, nay, thousands with whom I am acquainted, who differs with me in this opinion. It is common to give it once a week while the sheep are at grass.

It is still better to give them free access to salt at all times, by keeping it in a covered box, open on one side. A large hollow log, with holes cut along the side, for the insertion of the heads of the sheep, will make a respectable substitute. A sheep having free access to salt, at all times, will never eat too much, and it will take its supply when and in what quantities nature demands, instead of eating voraciously at stated periods, as intermediate abstinence will stimulate it to do. When fed but once a week, it is better to have a stated day, so that it will not be forgotten, and it is well to lay the salt on flat stones, though if laid in little handfuls on the grass, very little will be lost.

Tar.—This is supposed by many to form a very healthful condiment for sheep. The nose of the sheep is smeared with it, and it is licked and swallowed as the natural heat of the flesh, or that of the weather, causes it to trickle down over the nostrils and lips. Others, suffering the flock to get unusually salt hungry, place tar upon flat stones, or in troughs, and then scatter salt on it, so that both shall be consumed together. Applied to the nose, in the nature of a cataplasm, I have no doubt that it is advantageous in catarrhs—and put on the same place, at the proper periods, it may perhaps, by its odor, repel the visitations of the fly, (*Œstris ovis,*) the eggs of which produce the "grub in the head." As a *medicine*, it may be valuable, and even as a *detergent*, in the case specified, but as a condiment simply for a perfectly healthy animal, I confess I have no confidence in its utility.

Water.—Water is not indispensable in the summer pastures, the dews and the succulence of the feed answering as a substitute. But my impression is decided that free access to water is advantageous to sheep, particularly to those having lambs; and I should consider it a matter of importance on a sheep farm, to arrange the pastures, if practicable, so as to bring water into each of them.

Shade.—No one who has observed with what eagerness sheep seek shade in hot weather, and how they pant and apparently suffer when a hot sun is pouring down on their nearly naked bodies, will doubt that, both as a matter of humanity and utility, they should be provided, during the hot summer months, with a better shelter than that afforded by a common rail fence. Forest trees are the most natural and best shades, and it is as contrary to utility as it is to good taste to strip them entirely from the sheep walks. A strip of stone wall or close board fence on the south and west sides of the pasture, will form a passable substitute for trees. But in the absence of all these, and of buildings of any kind, a shade can be cheaply constructed of poles and brush, in the same manner as the sheds of the same materials for winter shelter.

Cold Storms, after Shearing.—These sometimes destroy sheep, in this latitude, soon after shearing—particularly the delicate Saxons. I have known forty or fifty perish out of a single flock, from one night's exposure. The remedy, or rather the preventive, is to house them, or in default of the necessary fixtures to effect this, to drive them into dense forests. I presume, however, this would be a calamity of rare occurrence in the "sunny south."

Sun Scald—Might be more common. When sheep are sheared close in very hot weather—have no shade in their pastures—and particularly where they are driven immediately considerable distance or rapidly, over burning and dusty roads, their backs are so scorched by the sun that the wool comes off. It is not common, however here. You may see one such in a flock of a hundred. Let alone, the matter is not a serious one, but the application of refuse lard to the back will accelerate the cure, and the starting of the wool.—*Randall's Sheep Husbandry in the South.*

CLOTHES AND WOOL-DRYING MACHINE.

A MACHINE has been in use for some time, in England, but little larger than a good sized tub, in which clothes of any kind, wool, or other materials may be placed, and, after a few turns of the machine, are rendered almost dry. The following description of it has been handed us by one of our correspondents, who has seen it in operation. None have been brought to this country to our knowledge; but from their great saving of time, labor &c., &c, we think the improvement a valuable one. We should be happy to aid any of our friends in procuring one, should they wish it: —

Within the case, are two open or spare boxes, revolving on an axis, into which the clothes are thrown, *dripping wet*, from the wash tub, whether of linen, cotton, or woolen, whether wearing apparel, house linen, blankets, counterpanes, or what not; when by the working of the machine five or six minutes, which requires very little strength, a current of atmospheric air is produced, and a centrifugal pressure created sufficiently to discharge the water so completely from the articles in these boxes, that fifteen minutes exposure to the air renders them fit for the ironing board!

On further inquiry of those who had it in use, I found it gave universal satisfaction; indeed, the saving to the clothing and the economy in fuel, (where drying closets were in use,) is so great, that not only large public establishments and private families have adopted them, but laundresses, in the vicinity of cities and large towns are willing to meet the expense of purchasing these machines; and they feel amply paid for the outlay, by the saving they make in time, labor, and fuel.

Machines on a large scale are got up for manufacturers, as by their use, all kinds of scoured wool, woolen clothes, baizes, flannels, blankets, &c. &c., can be dried in the short space of six minutes, leaving only sufficient moisture to work and finish off the goods. Carpet makers and calico printers, also, find these machines of the greatest value in expediting their work.

THE WHORTLEBERRY AND OTHER TREES AT THE SOUTH.

In the number of the Agriculturist for the current month, p. 155, you say; "We would be obliged if any of our southern friends would inform us whether the whortleberry, (vaccinium,) is found at the south except among the mountains." It is found abundantly in the forests in a large portion of Louisiana and Mississippi. We have no mountains properly so called in these states. The whortleberry, however, is most abundant in the more hilly or broken parts of the country even though the hills are of very little elevation. Two species of the vaccinium are native and now growing in my yard.

I have also about my house an insulated forest of about ten acres in which are several hundred trees embracing more than sixty species of native growth. Besides these, I have planted many other natives of our forests as well as exotics. Among the natives, in my little forest, are seven species of oak, the sycamore, magnolia, beech, holly, maple, ash, pine, tulip tree, cotton wood, sassafras, red mulberry, red, slippery, and winged elms, black walnut, two species of hickory nut, chincapin, iron wood, horn beam, black or blue gum, tupelo, sweet gum, dogwood, hopea, virgilia, wild cherry, &c. On other lands, I have many other native forest trees of which I intend to remove specimens to my residence. Having established a school for young ladies in this grove, I have given it the name of "Newton Place."

In this grove, are some magnificent forest trees, far surpassing in size, beauty, and grandeur, anything I have seen in your northern climate. We have here, also, a number of native vines growing luxuriantly; among them, two species of grape and the far-famed muscadine, the yellow jessamine, trumpet creeper, ratan, (*Zizyphus volubilis*,) cornucopiæ, &c., &c. Of the most highly-prized exotics is one purchased of you, over two years ago; namely, the Paulownia imperialis.

D. L. PHARES.

Whitesville, Miss., May 14th, 1849.

ON BREEDING.—No.2.

THE race horse, certainly the noblest creature the world has seen, is now said by some English writers to be degenerating, and it is proposed to go back and begin all over again, by breeding from new importations of the hardy Arabian.

The same it is feared will occur with the improved shorthorns. Yet the question will very naturally be asked, how is it that the wild cattle of Chillingham Park have been preserved unmixed for so many hundred years? The most obvious and readiest reply is, that they have been left in a wild state, that nature has had uncontrolled authority in their preservation and continuance, without the interference of man, to improve, or alter, or modify. But if their owners through all this range of years, had at any time been enthusiastic in the breeding of cattle, or had filled themselves with a conceit, that they possessed the means for improvement, there is little doubt that not one of them would be alive at this time. Another reason for their being still preserved, is, that animals in a wild state, generally, if not invariably, destroy all the feeble or sickly, or else they die in a more kindly manner, by being left to perish through inability to procure food, or in other words, that in a perfectly natural state, none but the hardy and vigorous animal can live. But where animals, no matter how strong or hardy originally, are bred with a certain object, as the race horse, for speed, the one kind of cattle for the butcher, another for the dairy, they inevitably run out. They become an artificial creature, and can only be preserved by unnatural means, all of which, after a certain time fail, and the whole breed so made up, gradually but certainly disappears.

Breeding in-and-in, then, as a system, cannot be indefinitely continued. A breeder up to a certain point, may, by adopting it, produce the most superior, even the most perfect animals. By its means, Bakewell gave to England the longhorns, the most beautiful animals of their day, and Colling the more beautiful shorthorns. But after a time, it becomes a mere moving in a circle, you introduce by it, all the finest points, you remove by it every imperfection, the breeder gains through it the object he had in view, but by persisting in it, you return to your stock, all the infirmities, and imperfections of which you had rid yourself, and bring back constitutional delicacy and disease.

A good deal in the art of breeding, even if we give full credit to the judgment, experience, and penetration of man, is still due to fortune. In all our estimates of human skill and power, we must not forget this. No human being, however remarkable in talent or energy, has gone through or completely succeeded in any undertaking, without feeling and acknowledging its strong and happy assistance. In this particular act, it happens that two extraordinary instances of its intervention and its aid, stand most prominent. It is said that there is not in England, at this present day, nor probably in this country, a single race horse of any character, which is not descended from the Godolphin Arabian. From the most authentic accounts of this animal, it is probable, and is now generally conceded that he was not an Arabian, but a Barb; also that he was never intended for breeding purposes, but kept as a teazer to a race horse of much celebrity, called Hobgoblin, and that his being made the sire of generations of noble animals was accidental, the mere trick of a stud groom. Nor was he even a handsome horse, or possessing such points as fitted him for the high duties of a breeder of race horses, at least, this was the opinion of his owner, and probably of other judges of that day. Yet as an evidence of how erroneous and imperfect man's judgment may be, though aided by long experience, this rejected brute has done more for the improvement of the horse, than the most anxious and nicest exercise of tact and skill has ever, or could ever have done.

The bull Hubback, the reputed founder of the shorthorns, was discovered accidentally, by Colling, and though his name is not so noted, nor the part he has played so important as that of the Godolphin Arabian, yet, in usefulness, there is no comparison. The splendid results and the fiery passions, engaged in horse racing, ove. 'ear, in the eye of the world, the gentle, unostentatious, and modest utility of animals known and admired chiefly by the agriculturists; but in the career and progress of nations, if it were asked which added the most to their productive wealth, which aided

and advanced the most their real and substantial interests, or which is of more importance than all, which is the least likely to corrupt the morals of a people, the spirit of gambling, that goes with the excitement of the race course, or the plainer and more serious pursuits of the plow, there could be no hesitation in deciding where the higher merit rested. Whoever undertakes the breeding of cattle, in this country, must look both to his soil and his climate. There are portions of the United States where neither of these seem suited to the mighty massive Durhams. A thin, sterile soil with six months of extreme heat and cold, three months of extreme heat and only three of moderate weather, do not form an aggregate of advantages in favor of that breed of animals. In such circumstances, a lighter and smaller beast would be the most profitable, such as they have already in New England, but bred with more care, and nurtured with more tenderness. This stock, now long established, crossed with Devons, of the pure kind, would probably give a better animal than the same crossed with the Durhams; though we see very little reason for crossing at all, if the young are only well fed and well bred. The country the best calculated for the raising of Durhams, is the west or portions of it. The natural green grass of parts of Pennsylvania will also do extremely well, and their early maturity, with the ready access to a market, gives peculiar advantages to this region. But there are not enough of them, to make them sufficiently cheap, for the farmer to raise for the butcher, and the cheaper lands of the west, render it a not very profitable enterprise. Still, some one must breed cattle, and whether it be done by a western grazier who has as much land and as large herds and flocks as a patriarch of old, or in a more economical manner, and on a smaller scale, by a farmer of the eastern states, there is no reason why they should not aim to have a perfect animal. All will depend on the spirit of the individual, at least much more than on the market value of the creature.

A. L. Elwyn.

Philadelphia, Nov., 1848.

PREPARATION OF GRAIN AND FLOUR FOR EXPORTATION.

One of the inspectors of the city of New York returned 218,679 barrels of flour, in 1847, as sour and musty. The aggregate of grain and flour annually damaged throughout the United States, by want of proper precaution, in preparing and putting up for market, cannot be less than $3,000,000 to $4,000,000; and in the year before mentioned, when we exported largely to Europe, it probably exceeded $6,000,000. That "haste makes waste," in this item of our national products, is quite certain. A little more pains in the proper disposal of the grain, would save the labor of reproducing much of what has once been grown.

Kiln-drying, or drying by steam, admitted through pipes, around which the grain or flour is made to pass, is an effectual mode of driving off the superfluous moisture, which, if allowed to remain, will, under many circumstances, as of heat and moisture combined, produce must, or souring. Many applications of heat, have, from time to time, been applied, but none have been generally adopted. The application of steam, we think best calculated to effect the purpose, and avoid the objection of scorching. This is an object well worthy the closest attention of American agriculturists, millers, and merchants. In addition to its other advantages, the weevil, which is very destructive among grain at the south, has been frequently avoided when the grain has been kiln-dried.

COTTON MANUFACTURING AT THE SOUTH.

Answer to M. W. Philips, of Mississippi.—If no other person has done it, I offer the following answer to Dr. Philips' inquiry about a cotton factory, &c., in the March number of the Agriculturist.

First, the size of Building.—The Graniteville Factory, in Edgefield District, S. C., 12 miles north of Hamburg, contains 9,245 spindles and 300 looms, and all the machinery of the very best kind and modern improvements, for making No. 14 sheetings and drillings. The building is of solid blue granite, 350 feet long and 50 feet wide, two stories high, with a good room in the attic, equal to half a floor or more. The picker room is also stone, separate from main building, two stories high. Store houses, offices, two churches, a school house, 83 dwellings of wood, and all the fixings of the neatest kind, with two dams, and races a mile long, 40 feet head, two turbine wheels, a saw and grist mill, a hotel, and 9,000 acres of land, all cost $300,000, or $32.44 for each spindle. The mills in Lowell, cost from $35 to $38 a spindle. A steam mill at Salem, Mass, cost $21 a spindle for 30,000 spindles, not including dwellings for operatives.

The details of cost at Graniteville are as follows:—

Real estate,	$12,222.35
Canals and dams,	9,505.46
Factory buildings,	60,144.57
Water wheels and flumes,	6,949.12
Shafting and gearing,	12,663.99
Machinery,	121,754.03
Fire and steam apparatus,	5,947.65
Starting up mill, and furniture,	3,587.96
Saw mill, machine shop, &c.,	9,079.86
Cord clothing,	3,010.00
Dwelling houses,	43,293.18
Streets and fences,	1,998.80
Contingencies not yet carried to proper account.	3,307.49
Margin left for future expenditures,	6,539.57
Total,	$300,000.00

The building is warmed by steam pipes as all should be.

There is a new factory at Augusta, Georgia, containing about the same amount of machinery, 208 feet long, 50 wide, and five stories high. The stairways of each are in projecting towers in front. Both of these are operated with white laborers, natives to the soil. These will consume ten bales a day and turn out 10 to 12,000 yards, of 30 and 36-inch sheetings and drillings. Cotton costs now 6¾ cents delivered. Average wages of all the men, women, and children, at Graniteville, in April last, $3.05 a week. Most of work done by the piece. Number of hands, 300.

At Vaucluse, on the same stream, the number of hands 94. Average wages, through last year 37.85 cents per day of 12 hours work. Number of spindles 2,280 and 43 looms, making 8-ounce Osnaburg and bundle yarn. Hands employed, 11 men, 50 to 60 girls from 10 to 25 years, and balance boys, from 12 to 20 years of age. Capital in the factory and buildings and lands, counted at cost, on a second-hand purchase by General Jones, the present owner, $30,000 and floating capital $20,000. The building is granite

40 feet by 80, four stories high, with a room in roof equal to three fourths of a story, and stairway in projecting tower. The picking room separate, 20 feet by 40. The machinery not of most modern kind, as some of it has been in use 17 years. In 1848, the wheel run 283½ days, and used 367,404 lbs. of cotton, excluding waste, costing 6 cents 7.388 mills per pound, making $24,758.81, and made 71,615 lbs. of yarn that netted 14 cents per pound, and 295,789 lbs. of cloth, or 591-579¼ yards that netted 7 cents per yard. The details of cost of this was, for 6,895¼ days' picking, &c., $2,268.39, or 6.175 mills per pound.

		mills per lb.	
7,922 days'	spinning,	6.933	$2,547.37
2,246 "	spooling & warping	1.406	415.98
1,450¼ "	dressing,	2.131	630.24
569 "	drawing in,	0.633	187.30
4,937¾ "	weaving,	9.360	2,768.64
562 "	trimming & baling,	1.164	344.34
1,114 "	hanking and bundling yarn,	4.953	354.75

840¾ " machinist, watch, roller coverer, and all extra work, 1.559 mills per lb., 572.90

making the cost of labor put upon cloth, to 2 cents 9.361 mills per lb., or 1 cent 4.681 mills per yard, and the cost of labor on yarn 1 cent 9.62 mills per lb., to which add as above, cost of cotton, and 743 gallons of oil equal to 2.471 mills per lb. of cotton, 908.03

Contingencies, which include materials, commissions, insurance upon $20,000, &c., and is equal to 1 cent 1.305 mills per lb. of cotton, 4,153.39

Transportation on cotton yarn and cloth 3.856 mills per lb., 1,416.73

73 barrels of flour for sizing, chargeable to cost of cloth 1.092 mills per lb., 323.20

48 reams of paper, chargeable to cost of yarn, 1.156 mills per lb. 82.80

Interest on $50,000 capital, 7 per cent, 9.526 mills per lb. of cot., 3,500.00

Net profits above all cost and interest as above, 7,826.81

Total cost of cloth per lb , 12 cents 4.999 mills, or 6 cents 2.499 mills per yard.

Total cost of yarn, 11 cents 5.322 mills per lb.

One fourth of the cotton used was short staple Nankin, and made into striped Osnaburgs. All cloth 31 inches wide, 8 oz. to the yard. Average daily consumption of cotton, 1,298 lbs.

All the hands, except a few men who are unmarried, and all that can, work by the piece. Families all live in factory houses, rent free, and cultivate all the land they choose to fence. General Jones has been here nine years, and no case of fever among hands. The mill stopt a few days last year on account of pneumonia among the operatives. The General has tried both and gives preference to white labor. At Saluda Factory, near Columbia, all operatives are black. DeKalb Factory, at Camden, has 1,680 spindles and 40 looms, 93 hands; two thirds white and one third black. Average 1,200 lbs. of yarn and cloth a day, one third yarn and two thirds 8-ounce Osnaburgs. Used last year 353,681 lbs. cotton and made 90,145 lbs of yarn and 234,055 lbs. of cloth—running mill 288½ days of 11½ hours. Size of building 125 feet by 29, four stories. Average wages of hired blacks, 18¾ cents a day. They board themselves. Wages of whites, 13 to 26 cents, and weavers by the piece—18 cents a cut of 33 yards, and average about 3 cuts a day. Weavers' wages of the last month from $9.90 to $18 per week.

Marlborough Factory, near Bennetville, S. C., owned by Captain M. Townsend, runs 1,000 spindles on coarse yarns, Nos. 5 to 10, with 35 hands from 10 years old up, averaging $1.90 a week, including 5 slaves counted at $8 a month—consumes 500 bales a year, at 5 cents a pound, and made last year 162,500 lbs. yarn. Average value at home, 12½ cents per lb. Cost of production in labor 2½ to 2¾ cents per lb. Capital $20,000 in mill and $5,000 floating. Sells about a third of yarn at home, and balance in New York. Hands all work by the day and week, and included in average cost is a machinist now repairing, whose wages are $9 a week.

SOLON ROBINSON.

Raleigh, N. C., May 6th, 1849.

ADULTERATION OF FOOD.—No. 13.

Spirituous Liquors.—Under this head may be included all the inflammable and intoxicating liquids obtained by distillation, and employed as beverages; as brandy, gin, rum, whiskey, &c., being unfortunately in such common use, and bearing so high a price, that they are peculiarly adapted for the purposes of adulteration, which may be of various kinds; but the most general is that by the addition of water. Were this the only sophistication practised, however, from obvious reasons, it would be productive of good rather than harm; yet, in truth, it has the very opposite effect; for, in order to disguise the dilution, it is necessary to add some substance, capable, by its pungency or other similar property, of completely counteracting the addition of water; such, for instance, as capsicums, Guinea pepper, oil of turpentine, ammonia, &c., all of which when taken in combination with the spirit, very injuriously effect the stomach.

The common *brandy* of commerce, it is probably known to most of our readers, is obtained by the distillation of wine. The quality of the brandy varies with that of the wine from which it has been distilled. Every soil, every climate, every kind of grape affords a wine possessing some peculiarity confined to itself, and this wine, on distillation produces an article possessing like distinctions. When first distilled, brandy is colorless, and acquires a yellowish tint from the wood of the casks in which state it is known and sold as "pale" or "white" brandy. The deep color that it often possesses, is imparted to it by adding a little spirit coloring, (burnt sugar or caramel,) and occasionally a small quantity of red sanders wood, and is intended to imitate the appearance acquired by brandy from great age, when kept in wood. The natural color, however, which this spirit receives from the cask, no matter how long it may have been in it, never exceeds an amber tint. The brandies most esteemed are imported from France, and are those of Cognac and Armagnac, the preference being generally given to the former. Those of Rochelle and Bordeaux may be reckoned next in quality, while those obtained from Portugal, Spain, and Italy are very inferior. The *eau de vie supérieure*, or Cognac brandy, is generally obtained from pale white wines by careful distillation, and is remarkable for its superior flavor. When kept in glass or stone bottles, it is called "white Cognac brandy."

New brandies, as well as rum, are flavored with oak sawdust and a tincture of raisin stones to impart the "ripe taste" which such spirits acquire by being long kept in an oaken cask. It is a common practice, also, to employ spirit distilled from raisin wine, which has become partially sour, for the

purpose of flavoring raw-grain spirits to imitate brandy. The following is a method of "making up" brandy for retail:—

"To ten puncheons of brandy, (1,081 gallons,) add flavored raisin spirit, 118 gallons; tincture of grains of Paradise, four gallons; cherry-laurel water, 2 gallons; spirit of almond cakes, 2 gallons. Add, also, 10 handfuls of oak sawdust, and give it 'complexion' with burnt sugar."

Holland spirit, *gin*, or *geneva*, which is distilled from unmalted rye by a peculiar method, and flavored with juniper berries, and sometimes by the addition of a little pure Strasburg turpentine, and a handful or two of hops, is usually adulterated with water. Sugar is also added, and a mixture composed of alum, carbonate of potash, almond oil, sulphuric acid, and spirit of wine. This compound not only fines the gin, but communicates to it the property of "beading." A creaminess and smoothness to the palate is given to gin by age, or the addition of a little sugar, and a small quantity of caustic potash is sometimes added to it, so as to impart to it a biting taste.

British gin is usually made of clean, grain spirit, flavored, as modifying ingredients, with oil of turpentine, bitter almonds, creosote, common salt, and sometimes with sliced lemons, oil of juniper, and other aromatic substances. The turpentine conveys a plain gin flavor; creosote imparts a certain degree of smokiness; lemon and other aromatics, a rich, creamy fullness, which a generality of gin drinkers admire.

Rum, an ardent spirit obtained by distillation from the fermented skimmings of sugar boilers, (syrup skum,) the drippings of the sugar pots and casks, (molasses,) the washings of the boilers, and occasionally the juice of the sugar cane, is subject to but few adulterations other than water, and the admixture of inferior kinds. Sometimes, however, sliced pine apples are added to rums of ordinary qualities, with the view of imparting to them the flavor of Jamaica "pine-apple rum."

Dilute alcohol, obtained from the fermented wort of malt or grains, is generally known under the name of *whiskey*. That extracted from malt is the most esteemed. The inferior qualities of this spirit are prepared from barley, oats, rye, or Indian corn, a small portion of which is malted; or from potatoes mashed with barley malt, the resulting wash being carelessly fermented and distilled, and purposely suffered to burn, in order to impart the peculiar empyreumatic or smoky flavor, which accidentally attends the manufacture of the famous "mountain dew" of Ireland, and is so much relished by amateur whiskey drinkers.

The malt whiskey, sold as such, of the principal Scotch and Irish distilleries, is fully equal in quality, to London gin, from which it merely differs in flavor. The peculiar flavor of Scotch whiskey, may be nicely imitated by adding a few drops of pure creosote to two or three gallons of good English gin; and the imitation will be still more perfect, if the liquor be kept for some months before drinking it.

We will conclude this series, by another extract from the narration of the same old broken-down grogseller mentioned in our last.

"What have you got to say agin blue ruin, old fellow?" demanded a knacker, who was regaling himself with a glass of gin and water.

"Blue ruin—gin!" cried the old man. "Ah! I can tell you something about that, too. Oil of vitriol is the chief ingredient. It has the pungency and smell of gin. When you take the cork out of a bottle of pure gin, it won't make your eyes water; but the oil of vitriol will. Ha! ha! There's a test for you. Try it. Oil of turpentine, sulphuric ether, and oil of almonds are used to conceal the vitriol in the 'made up' gin. What is called 'fine cordial gin' is the most adulterated of all. It is concocted expressly for dram drinkers, Ha! ha!"

"Rum, I should think, is the best of all the spirits," said a buffer.

"Because you like it best, perhaps," exclaimed the old man. "Ha! ha! You don't know that the 'fine Jamaica rum' is nothing else but the vile, low-priced Leward-Island rum, which is in itself a stomach-burning fire water of the deadliest quality, and which is mixed by the publican with cherry-laurel water and 'devil?'"

"Devil? What's that?" asked the knacker.

"Aye, what is it indeed? It is but Chili pods infused in oil of vitriol. That's all."

"Now for the 'best Cognac brandy,'" continued the old man. "Do you think half the brandy sold under that name ever saw France?—ever crossed the sea? Not it! Aqua ammonia, saffron, mace, extract of almond cake, cherry-laurel water, terra Japonica, and spirits of nitre make up the brandy, when the domestic distilled spirit has been well deluged with water. That's your brandy! Ha! ha! And now, I dare say, you wonder why I drink beer or spirits at all. It is this: Because I am old and miserable; because I'm poor and wretched; because I must kill care somehow or another; and therefore I take daily doses of these slow poisons."

ROUGH NOTES BY THE WAY.—No. 9.

I LEARNED from a gentleman and his lady, in New Jersey, where I stopped to spend a short time last summer, the following interesting fact. "While doing business in the city of New York, in 1836," said he, "my wife said to me, one day, instead of travelling in the summer, why not buy a farm and let me cultivate it, and you come out when your business will permit?" He took her at her word, bought a farm of 140 acres and moved upon it. It being entirely exhausted, not yielding hay sufficient to keep a horse and cow, he commenced making manure by hauling muck and other material into the barnyard, sowed oats, buckwheat, and clover, in separate fields, and plowed them under. He then spread lime upon some fields, and potash upon others, until his crop of grass was sufficient to keep a good stock of cows and a team sufficient for the purposes of the farm. This enabled him to enrich his land, still keeping up the mucking system, of collecting every other material calculated to augment the quantity and absorb the liquid of the stable and barnyard, poudrette, bonedust, and guano, not being in use at that time. He did not boast of having raised so large crops as some of your subscribers, but that they were respectably so, is

evident, as he raised upwards of 1,300 bushels of ears of corn from 15 acres, in a single year.

In 1844, eight years after purchasing this farm, his grass brought standing, in the field, in the month of June, from $12.50 to $18.75 per acre, and the farm sold for more than one third over its original cost with very little improvement either in fences or buildings. The price of land, however, was considerably lower than at the time he purchased, the advance being wholly in consideration of the high state of cultivation of the soil.

Much of the success in this farming operation may be attributed to the management of the good lady, in the absence of her husband. The way she served out the corned beef, bacon, and greens to the hired men cannot find a parallel. Her father was a wealthy merchant, in Philadelphia, and owned a farm in the neighborhood. After leaving her boarding school, she went with the family to spend the summer, at the farm, where she found a woman highly recommended who had been engaged to make the butter for the season. On going down to the milk house, a quarter of a mile from the dwelling, she there found the milk room literally sprinkled with cream and the churn and milk pans musty. She ran back to the house, just in time to see her father before he started for Philadelphia, and said to him, as he was getting into his carriage, "this butter maker will never do for us. Just come down and see for yourself." Down he went, and on beholding the condition of his dairy, his ire was kindled and he said, "my dear child, what shall we do?" "Why," said the daughter, "take the woman into the carriage back to the city and let me make the butter." The action followed the word. With a colored boy to do the churning and a little girl to assist, she made from June to the first of October, upwards of 900 pounds of butter, which was sold as fast as made, at a store in the neighborhood, at 25 cents per pound, besides using milk, butter, and cream in the family, and occasionally sending a roll to a friend. There were nine cows, one of which was farrow and another a two-year-old heifer. Had there not been something attractive about this spring house, this young lady would never have had her attention directed to making butter. Suffice it to say, it was a stone building, in which was a spring of cold water, pouring into a stone trough, well cemented and turning round three sides of the room, wherein the pans were set for raising the cream. Near by, was a wooden building with a copper boiler and every convenience for cleaning pails, pans, churn, &c., under an immense large black oak, with its broad dark-green leaves overshadowing the whole and keeping the atmosphere cool in the hottest days of summer.

SAMUEL ALLEN.

Morristown, N. J., May, 1849.

THE KUM-QUAT.—The Kum-quat, (*Citrus japonica,*) is extensively grown in pots by the Chinese for decorative purposes, during the winter months, and produces an excellent effect. It is much more hardy than any other of the orange tribe, and when in full bearing is literally covered with its small, oval, orange-colored fruit. It is of easy cultivation by grafting, and is worthy of the attention of American amateurs.

AGRICULTURAL PROGRESS SOUTH.

THE planters of the south are just beginning to put their "shoulders to the wheel," and revolutionize all the obsolete ideas in farming. *Progress* has reached us even here, and we are in earnest. It is found better to adopt other views than those which have so long held us in their iron thrall. All around us, you can see improved implements of agriculture, and practical evidences of reason. Innovation is not now shunned, and many specimens of the most excellent effects are evident. We are on the right path now; and, in a few years more, we hope to see our once sickly child, the south, smile again with robust health. But we are still dependent on the west for our meat, notwithstanding what the "Great Mastodon" says to the contrary.

A review of the receipts from the interior and the exports from the city of New Orleans, will prove my assertion. I find that the receipts of pork for the past year, in New Orleans, that is, from the 1st of September, 1847, to August 31st, 1848, *over and above* the shipments from that city, have been, say 38,117 bbls. pork; 14,201 hhds. do.; 13,564,430 lbs. do.; 18,539 hhds. hams; 381,140 lbs. bulk bacon. This is in addition to the immense amount of pork and bacon sold out by flat boats on the river to plantations, and by steamboats to the larger towns, Natches, Vicksburg, &c. Where is this great amount of meat consumed? It must go to supply the south. I do not pretend to say that many planters do not raise their own meat, but as a general thing, they do not raise their own pork in the south. There are many causes which prevent them. For instance, the difficulty of curing and saving it, and the quantity of cotton made, thus preventing us from raising sufficient corn.

The continued low price of cotton has induced many of our prominent planters to turn their attention to the cultivation of the sugar cane; and from land well conducted, experiments made in this parish, it is now generally conceded, that sugar of a good quality can be made on our thin uplands. It remains to be proved whether there is sufficient stamina in the soil to support the continued drain on it. At least, it is thought the land can be kept up by alternate rows of corn and peas with the cane. These must return something to the soil. The experiment is being tried, and we shall soon know whether it will be profitable to raise sugar in the uplands. There are many advantages over the coast planters, and not the least is the facility with which wood is procured. Some have said that hauling sugar would spoil its grain. This cannot be. In Terre Bonne and some of the western parishes, sugar is hauled some distance. I never have heard any complaint on that score. It is to be hoped that our interior planters will succeed. There are some three sugar houses in this parish now, and from what I can learn, there will be no less than eight or nine more ready by the fall of 1850.

J. S. PEACOCKE.

East Feliciana, La., March 1st, 1849.

The early sower never borrows of the late.—*Old English Saying.*

A MODEL HORSE.

THE cut below is the portrait of a thorough-bred English race horse, after the model of such as were more commonly bred in the latter part of the past century. Then they were stout, fleet, and enduring—could take up a heavy weight, run their four miles, and repeat, and all this at a pace that the fastest of the present day, with their light weights and short distances, would find it difficult to match. We do not wish to be understood as asserting that all the race horses of the present day have degenerated, and are light, delicate, and weedy; for, on the contrary, many are still strong and fast; we only say, that, owing to the great change in running horses, in England, now-a-days, this is the tendency.

But to our model, which we think almost perfect. See his broad, intelligent forehead; bright, gazelle-like eyes; fine, dished face; distended, fiery nostrils; short, pointed ears; arched neck and flowing mane; deep, full chest; round barrel, well-ribbed up; short, strong back; powerful, muscular quarters; well-set and bushy tail; fine, sinewy legs; strong, elastic pasterns, and clear, open hoofs.

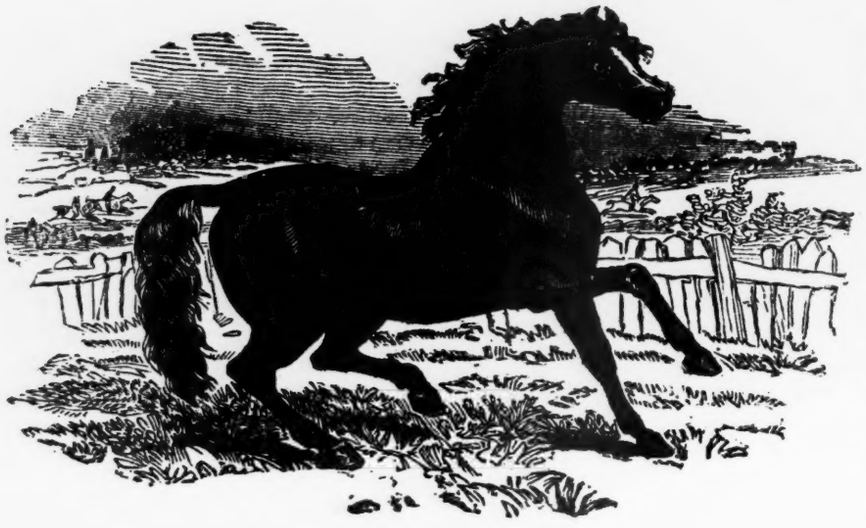


FIG.—50.

Such a horse would not only make a fleet racer, but would be strong enough for the cavalry; and on good-sized country mares, would get stout roadsters. He is decidedly like the Arabian in all his points, except that he is larger, stouter, and of course, much more serviceable for general use.

VERMICELLI AND MACARONI.

VERMICELLI is the Italian word for a paste of wheaten flour, drawn out and dried in slender cylenders, more or less twisted, like worms, whence the name. The wheat, from which it is made, is first coarsely ground, so as to free it from the husk. The hardest and whitest part is then separated by sifting, a little more ground, and the dust separated from it by bolting. The remaining granular substance, called by the French, *semoule*, forms the basis of the best pastes.

In the manufacture of this article, the softest and purest water appears to be necessary, 12 pounds of which are usually added to 50 lbs. of semoule. It is better to add more semoule to the water, than water to the semoule in the process of kneading. The water must be hot, and the dough briskly worked, while it is warm. The Italians pile one piece of dough upon another, and then tread it well, for two or three minutes, with their feet. They afterwards work it for two hours with a powerful rolling pin, which consists of a bar of wood from ten to twelve feet long, larger at one end than the other, having a sharp, cutting edge at the extremity, attached to a large kneading trough. The whole process of kneading, however, might be performed in a more cleanly manner, and greatly simplified by improved American machinery.

When the dough is properly prepared, it is reduced to thin ribbons, cylinders, or tubes, to form vermicelli and macaroni of different kinds. This operation is performed by means of a powerful press, which stands in a vertical position. It contains an iron platine, or follower, carried by the end of a screw which fits exactly into a cast-iron cylinder, called the "bell," somewhat like a sausage machine, the bottom of which is perforated with small holes of the shape and size intended for the article to be manufactured. The "bell" is filled, and warmed with a charcoal fire, to soften the dough into a paste, which is forced slowly through the holes, and is immediately cooled and dried by a blower, as it protrudes. When the threads, or fillets, have acquired the length of a foot, they are grasped by the hand, broken off, and twisted upon a piece of paper, while still flexible, into any desired shape.

Macaroni requires to be made of a less compact dough than vermicelli. It is usually forced through the perforated bottom of the press, in fillets, which are afterwards formed into tubes by joining together their edges before they have had time to dry. When left in the form of a fillet, or ribbon, it is called *lazagnes* by the Italians.

Vermicelli is made with most advantage from the flour of warm countries, which is the richest in gluten. For instance, the wheat from Sicily and the southern parts of the United States generally contains a larger proportion of this substance than that grown in higher latitudes. Yet, according to the analysis of Professor Johnston, the fine flour of the celebrated Amalfi or macaroni wheat, of Italy, contains, in 100 parts, 13.3 of water and 11.62 of protein compounds, (chiefly gluten). But this is not above the average of the proportion of gluten contained even in our New-York and western flours. It is believed that, if an enterprising individual would commence the manufacture of this article, on an extensive scale, in this country, there is but little doubt that the filthy Italian macaroni would soon cease to be imported.

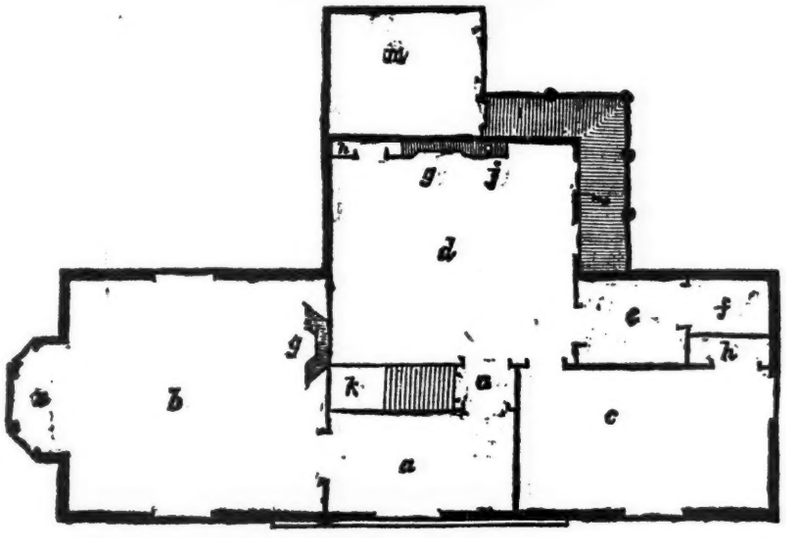
A pleasant dish may be made of macaroni, by boiling it in water until soft, either with or without salt, drawing off the water, and then stewing it with a little butter, cream, and grated cheese, after which it may be made into a form, and browned in an oven or before a fire.

RURAL ARCHITECTURE.

I HAIL the periodical visits of your journal, with great pleasure, as it is always to me a feast of fat things. Indeed, I know of no work of its kind extant, (and I take nearly half a score,) wherein is so perfectly combined the *utile dulce*, as the American Agriculturist, so eminently practical and common sense is it, in its details, that it must commend itself to every intelligent house keeper throughout the length and breadth of the land, as well as those who feel any interest in the foundation of the prosperity of the American people.

Holding opinions like these, and in consideration

No. 51.—PERSPECTIVE VIEW.



No. 52.—GROUND PLAN.

of the pleasure I have derived from perusing the efforts of your pens and those of your numerous correspondents, I will, in turn, endeavor to reciprocate the favor, and add my quota to interest them. How far I shall succeed, I leave for you and them to decide.

Enclosed, I send you a sketch of an ornamental cottage, the first of a series of designs, which I will furnish from time to time as my few leisure moments will allow.

Fig. 51, is a perspective view of a cottage, containing three rooms on the lower floor, and two of

three chambers suitable for a family of five or six persons. It is intended to be covered with boards laid on vertically and battened if not built of brick or stone—the chimney to be furnished with fancy shafts, and the gables with ornamental verge boards. The batten should be made of two-inch planks, and not of thin boards as is customary; as this gives them a flimsy appearance, and detracts from the beauty of the whole.

If it is desirable to build as cheap as possible, let the outside be of unplaned stuff, which I much prefer, and the inside finished with clear pine and varnished as soon as done, without painting. This gives a very pretty finish, and little furniture shows to much better advantage than in a painted room; though some object to this on account of its sombre appearance.

Fig. 52, is the ground plan. *a, a*, halls; *b*, parlor; *c*, bedroom; *d*, kitchen; *e*, pantry; *f*, china closet; *g, g*, fire places; *h, h*, closets; *j*, boiler; *k*, chamber stairs with cellar stairs under them; *l*, verandah; *m*, woodshed; *n*, bay window.

The dimensions are not given, as they can be made to suit the wishes of the builder. Some might prefer to have the front room, *c*, used as a sitting room or library. This might be so occupied in summer, but it would be difficult to heat it in winter, without carrying a pipe through the chamber above.

J. B. DAVIS.

Boston, June, 1849.

MANAGEMENT OF SWINE.-No. 1.

We propose to make out a series of condensed articles in our succeeding numbers, on the best kinds of swine and their management throughout the different sections of the country, and as no one person can be supposed to know every thing on every subject, we shall feel obliged to any of our experienced and intelligent readers, for any new or important information, *practical, reliable, and to the point*, on this topic.

The number of swine at present in the United States, may be fairly estimated at 20,000,000, which, at $3 per head, gives us the enormous amount of $60,000,000 invested in this article alone. There are in the single state of Ohio, over 2,000,000, and more than 500,000 have been slaughtered in Cincinnati in one season.

From the rapid production and quick maturity of swine, they are made to yield a speedy return for the investment. The number of old and young, annually slaughtered in this country, probably does not fall below 10,000,000, worth in market an average of at least $5 each, giving as an annual return of $50,000,000—our *swine crop*, thus, yielding an amount about equalling our entire cotton crop. Almost every man has his pig, while a comparatively small number have their cotton field. Nearly every one, therefore, has an interest in swine, and but few have an interest in the production of cotton. Yet cotton occupies a large share of public attention, while swine are scarcely noticed.

The flesh of swine furnish more than half the meat consumed by the laboring portion of the Union, including those employed in the military and marine service and our merchant vessels. When from the best breeds, well fattened and well cured, pork forms one of the most nutritive, as it is the most popular of our meats. None is so highly relished, and on none can a greater amount of labor be performed than on sweet, corned pork. It enters into a countless number of dishes, either as flesh or lard, imparting richness, flavor, and nutrition to all. And the juicy, delicious, corn-fed, well-prepared bacon is generally an acceptable dish on every table, saving only a Jew's or Mahommedan's. But the use and value of swine are not limited to food. Their carcasses are of vast and increasing importance in the useful and mechanical arts.

When pork is abundant and cheap, large quantities of it are converted into lard and oil. This is done not only with the more exclusively fatty portion of the meat, but frequently the whole carcass is placed in a steam bath, and all the oily particles are extracted. This, however, is purer when the skin is first taken off, that part yielding a more glutinous, visced oil, or fat, than the remainder. When thus removed, the skin affords a portion of inferior oil, and is afterwards converted into a leather, valuable for the saddler and for other purposes. The bristles are used for brushes, and the bones are made to afford some profit by being first reduced to charcoal, in which condition it is known as ivory black, and is extensively used by sugar refiners and others.

The lard may be subjected to a pressure, which separates it into two substances, widely differing from each other, one being a pure oil, limpid in all weathers, and known as olein; the other, a compact substance resembling the best mutton tallow, and melting only when exposed to considerable heat. Both are equally suited to the purposes of illumination, the former in lamps, the latter as candles. Extensive use is made of the oil for machinery, and none is found, (from its purity and freedom from gumminess,) to answer a better purpose by lessening friction.

Such being the value of swine to our domestic comforts and national products, every item of information that enables us to avoid disease, produce thrift, and augment their value, if intelligently and judiciously carried into practice, will produce a vast aggregate of annual profit to pork raisers throughout the country. We are particularly desirous of learning the most successful mode of treatment at the *south*, as it is there we hear the loudest complaints of thriftlessness, disease among these useful animals, and want of success in breeding them.

A NEW MANURE.—Mr. Robert Bryson, of Harrisburg, Va., has been experimenting for the last ten years, to make exhausted tan bark available as manure. His plan is this: He has tan wheeled out on a flat piece of ground, and leveled off two or three feet thick. Over this, he spreads a layer of two or three inches of lime, and over that a stratum of tan; then a layer of lime and so on. He lets the bed, so prepared, remain for two years; at the end of that time, he finds himself in the possession of a bed of manure, the effects of which upon the land can hardly be surpassed, for the richness of its product, and the durable fertility it imparts.

AGRICULTURAL TOUR SOUTH AND WEST.—No 7.

HAVING spent a night with Dr. Bingay, at whose house the reader will bear in mind I stopped over to rest. It was here that I saw the coco grass, mentioned in a former letter, as growing out of the top of a sugar-house chimney. The Doctor is a small planter, and has just erected a new horse mill, of which I shall speak more particularly hereafter. He is a practising physician, and I believe a very well-informed man, full of activity and enterprise. But as I shall have occasion to speak of the Doctor again, let us ride on.

The next place worthy of note, is that of Col. Preston, of South Carolina, son-in-law of the late Gen. Hampton. It is a part of the "Houmas Grant," the other part being owned by his brother-in-law Col. Manning. Col. P. has about 2,000 arpents, under cultivation, and 350 hands in the field and 750 in all, upon the place, under the management of Capt. Sheafer, a very intelligent and pleasant gentleman. It takes 150 horses and mules to work this place, which is rather under the usual number upon other plantations. The last crop, which he considers "almost a failure," was 1,100 hogsheads of sugar. All the land on the river is measured by *arpents*, which contain, within a small fraction of 18 per cent. less than an acre.

I counted in one "quarter," (the name given to the negro houses,) upwards of 30 double cabins, all neatly whitewashed frame houses, with brick chimneys, built in regular order upon both sides of a wide street, and which is the law, must be kept in a perfect state of cleanliness. Feeding the force on this place is not quite equal to feeding an army, but it takes nine barrels of pork every week, which, at an average of $10, is $4,680, per annum, cash out, for that item alone. The regular allowance of pork to all field hands, is four pounds, clear of bone, per week, with as much corn meal as they can eat, besides molasses, sweet potatoes, vegetables, and occasional extras of fresh beef and mutton. Children's rations, 1½ pounds of pork per week, and full supply of other things. This place being in a bend of the river, the front is comparitively very narrow, (34 arpents, or about 28 to a mile,) and "opens out," as the lines run back, like a fan, which is the way that all the lands were originally laid off. On points, on the contrary, the lines run together in the rear, the fan opening the other end foremost.

An ox-breaking machine, I saw at Dr. Wilkins', consists of a pole about ten or twelve feet long, fastened on top of a stump by a bolt, so it will turn round freely, the steer being fastened at the other end with a strong bow, and having a rope fastened around his loins and to the pole, he is left to go round and round, until, on being taken out next day and yoked in the team, he is ready and willing to go ahead. Dr. W., who has this machine, says he copied it from some agricultural paper, and as he owns a large steam sawmill, and has a great many steers to break every year, he would not be without it for a hundred dollars a year. But still, to use it, is "book farming." Perhaps a little more such book farming would be economy. He also says that bleeding a horse until he faints and falls, will cure the worst case of colic, and not injure the horse. [Doubted.—EDS.] Although he owns a thousand acres of cypress swamp, the difficulty of getting the lumber out, unless he should first dig a canal, is so great that he buys all his logs in rafts that come down the river. Lumber is worth $12 to $30 a thousand. He has in operation at his mill, a stave-making machine, that makes six to eight staves a minute. It is the same kind of machine, I believe, patented and in use in the state of New York, and in this sugar region where so many barrels and hogsheads are used, it ought to be in general use. I commend it to the attention of planters. They can easily see it in operation, and learn its labor-saving powers.

Mr. Fagot, a very polite French gentleman, whose first inquiry after introducing myself, as is almost always the case at that particular time of day, "have you dined?" has a brick-drying shed, under which he can dry 30,000 at once, upon the "bearing-off-boards," put on slats fastened to posts. By this plan, he can have the shed filled with bricks at odd times through the summer, which may be burnt when ready. Owing to the very frequent showers in this country, brick making is a very "catching business," but by this plan, all that trouble and loss is obviated.

Mr. F's place is a short distance above the "convent," in St. James' parish, which is a very imposing-looking structure, or rather structures, neatly formed and where a large school is kept; and where all looks in a healthy, flourishing condition. This was a state-fostered institution, and is said to have cost near half a million of dollars.

Along the road, the small Creole places are thick as "three in a bed,"—all the tracts being 40 arpents deep, and the reluctance of old families to sell out, has caused divisions and subdivisions among heirs until the land is thrown into a shape almost worthless, as I have already mentioned. Fancy a farm three rods wide, and 480 rods deep, and if you like it here is a lot on 'em.

My entertainer at night was a French gentleman by the name of Ferry, where I found a small house well furnished, standing separate from the dwelling, in which to lodge travellers, where all their wants are as well cared for as though it were in a hotel.

Among the beautiful plantations passed, was that of "Golden Grove," belonging to C. M. Shepherd, Esq., for which I would willingly exchange all my interest in the California golden groves, or "placers." The most of the interest of a visit to this splendid plantation, was lost by not meeting the owner, whose character as a planter and as a gentleman of taste and refinement, stands very high. A few miles below, is the plantation of Dr. Loughborough, on the point, which, owing to the shape of the tract, as before mentioned, has no woodland, and where I saw the whole force of the estate at work "catching drift;" a job of no small amount upon a place making 500 hogsheads of sugar, as that alone would consume, at least, 2,000 cords of wood of the usual quality of drift. The process of catching drift is by sending out a skiff, which fastens a rope to a whole tree, perhaps, and a very large one too, sometimes, and towing the prize ashore. One end of a chain cable is made fast to it, and the other to a powerful capstan, turned by horses or mules. I say powerful, for I saw them snap the chain like threads, when getting

hold of "an old settler," before they could get it upon the beach far enough to take off a cut, which is done, cut after cut, until they are able to pull out the remainder. This may seem a very precarious way of supplying a large plantation with fuel, and yet it is the only dependence of many. Formerly, it was a tolerably easy method, but of late, there are so many hundreds of persons whose whole income is derived from this source, besides the great amount required by plantations, that the supply is hardly sufficient to meet the demand, and a great deal of very poor stuff is now caught with avidity, that, in those good old times of plenty, would have been despised.

On my way, I called on my old friend and acquaintance, David Adams. As is the general custom among the planters in the "rolling season," he eats and sleeps in the sugar house. I am well satisfied that the "Mayor of Pittsburg," who is a brother of Mr. Adams, did not enjoy a more pleasant dinner than was our sugar-house fare that day. Mr. A. says that he made 60 bushels of corn to the arpent upon one piece, this year, of a choice white kind, by manuring and deep plowing, which is three times the usual crop. His molasses cisterns are of cement, plastered directly upon the pit dug in the earth, which he thinks preferable to brick work. As he has had to catch or buy fuel, he has made a part of his crop this season, as an experiment, with Pittsburg coal, and is well satisfied with the result. He mixes a small portion of wood under his kettles with the coal, which he thinks should always be done. Out of the many planters and farmers, whose early life was spent in other pursuits and who afterwards made successful tillers of the soil, although mere *book farmers*, Mr. A. may justly be ranked.

Among other enterprising and improving Creole planters, Mons. Boudousquie, below Mr. Adams', deserves mention, as does Mr. Felix Reine, in whose garden I found a great abundance of very large and most delicious sweet oranges, which are rendered quite unsaleable, even at the low price of 40 cents a hundred, by the alarm of cholera in New Orleans, with the idea that indulgence in fruit is dangerous.

Mr. J. Gasset, from Kentucky, at Bonnet-Carré Bend, with whom I spent a night, lives in the house built by the old Spanish Commandante, 70 years ago, which is still in a sound condition. It is built of red cypress, which is as much more durable than white, as is red cedar more durable than white cedar. Mr. G. has the first draining machine that I have met with. It is a steam engine and wheel which elevates the water five feet, and cost $5,000. He has 600 acres in cultivation, ditched every half arpent (about 100 feet). The machine works on an average about three days a week, at an expense of 300 cords of wood a year, which is worth $2 to $3 a cord, and one hand to tend. If run constantly, it would drain 500 acres. Mr. G. has plenty of wood, but it is in a wet swamp and troublesome to get out. He has used green bagasse to boil sugar, as he thinks to advantage, by mixing it with half the usual quantity of wood. The cost of drainage would be greatly lessened, if a united interest could be brought to systematize a great work of the kind. Time and increased value of the lands will bring this about, and make this "great swamp state," one of the gardens of the world. Canals will be made as common as in Holland, and a similar system adopted to get rid of the surplus water. More than half of the area of the state is susceptible of having a navigable canal made to pass through every plantation. When this is done, the draining machines would empty the canals, and keep the surface of land that is now ten or twelve feet below flood height of water in the Mississippi, in a perfectly dry and fit state of tillage, at a far less expense, per acre, than is now incurred by the imperfect individual system. "Union is strength," and that is the only kind that can control the floods of such a "great father of rivers," with so many obstreperous children.

SOLON ROBINSON.

New Orleans, Dec. 29th, 1848.

THE COW—HER DISEASES AND MANAGEMENT.—No. 14.

Hoven.—This disorder, sometimes called "fog sickness," is a species of flatulency, which is very sudden in its appearance and very violent in its effects. It is occasioned by turning the animal into fresh clover, lucern, pea vines, green Indian corn, buckwheat, or other rich pasture, to which she has not been accustomed, where she eats so greedily as to overload the stomach.

In this state, the extrication of the gases of her food takes place, and produces such a violent distortion of the paunch, that the gullet or upper part of the stomach becomes closed, so that no vent can be given to the contained matter, and unless prompt relief can be afforded, the death of the animal most generally ensues in a few hours. In the last stages of the disease, the tongue hangs out of the mouth, the eyes are full and protuberant, and the rectum, (last gut,) is distended externally sometimes four or five inches. The cow often drops down dead to all appearances, or exhibits signs of the most severe torture and pain, and her groans are piteous and distressing in the extreme.

In this complaint immediate relief must be given, which may be procured by opening the cavity of the first stomach by pushing down the throat of the animal a flexible pipe, or tube, (one formed of India rubber, gutta percha, or of linseed oil will do,) through which the air, or gases, suddenly rushes out, and she is soon relieved of all her distress. If this remedy is not at hand, the first thing to be done is, to open a vein; then stab the animal to the depth of two or three inches, with a sharp-pointed knife in the left flank, about three inches from the hinder rib, as near the hip bone as can be done, without piercing the flesh. The operator should stand near the left shoulder with his left hand on the back of the animal, and make the incision with his right, in order to avoid being kicked, which sometimes, though rarely happens. If she is down, the hind legs may be secured, for the moment with a cord. Be not afraid of wounding the intestines, as no danger can ensue, provided the cut is made high enough up. The knife must pierce the abdomen, to let the wind escape, which lies in the cavity around the paunch. The orifice must be kept open some little time, by inserting a small quill, and then healed up by applying over it a plaster of pitch. By this method

the same relief will be afforded as by running the tube down the throat.

In the meanwhile, warm a quart of milk, to which add half a pint of molasses, an ounce of anise seed, and a table-spoonful of sweet oil; mix the whole together, and inject, with a common glister pipe and bag, into the rectum. This will stimulate the entrails, keep warm and alive the blood, till the respiration of the animal can be recovered. If a glister of this sort cannot be had, bruise an onion, mix with butter and pepper, and put it up the fundament. This will have a similar effect as the one last named.

After the violence of the disease has abated, the following purging medicine may be administered, in order to throw off the accumulation of food in the stomach, which is all that is necessary to effect a cure :—

Take, Epsom salts, 1½ lbs.; althæa ointment, 3 oz.; saltpetre, ½ oz.; powdered fenugreek, 1½ oz.; powdered mustard seed, 1½ oz.

To be given, at one dose, in three quarts of gruel in which two ounces of soap have previously been dissolved.

One or the other of the above methods should be immediately applied; for, half an hour, and frequently a less time, terminates the disease by death or recovery. Therefore it is necessary to be expeditious. Do not listen to those who tell you about danger from the knife. It may, and sometimes does fail; but without it, or the other method, the loss of your cow is almost certain.

CULTIVATION OF GRASSES AT THE SOUTH.

SHORTLY after commencing operations at this place, I began the cultivation of the northern grasses, and thinking I might succeed on the flat lands, adjoining the marsh and river and the higher parts of the marsh itself, I was induced to have ditches cut, and dams thrown up with a tide gate to let out the overflow of fresh water, and to close at the flowing of the tide, which always takes place whenever we have an easterly blow. For a few years, I was much pleased with the prospect of success, but as soon as the belt at the ocean began to give way and many inlets formed, the salt water commenced flowing in upon us, which was so greatly impregnated with salt as to disappoint my expectations, by killing the grass and rendering the soil barren to everything but worthless water bushes and rushes.

I have been much pleased in perusing the short extracts taken from Allen's American Farm Book, on grasses, meadows, and pastures, and have been induced to collect and forward you several kinds of native grasses, which I find growing spontaneous on my plantation. The class of soils on which they are found are of different locations from the flat lands near the river to the hill side and ditch bank of hard clay, in which it seems to grow and flourish. The gamma grass is one of these kinds. Having only a limited knowledge of Botany, I am quite ignorant of the proper names of these grasses, and should be much gratified, in deriving some information from you on each kind sent you.

The gamma grass I am familiar with, and if you have never seen it, you will readily distinguish it from the others by its wide fodder-like leaf and strong root, which resembles the lily and flag. Th is is a very valuable grass to the southern farmer, and can be propagated either by the seed or plant; but it will not do for stock to run on it longer than the 10th of May, as the continued grazing of the cattle will destroy the roots by plucking the tender shoots, which more readily pulls out than break off at the root. When mowed, which can be done after the cattle have been removed in the spring, I have known this grass to grow three inches in five days; and in thirty or forty days, if the soil is strong and calcareous, it can be cut with the sickle or Dutch hook, which is the best mode of doing it. While young and tender, it makes excellent food for milch cows, the cream and butter soon showing the deep yellow and fine flavor; and while curing in the shade, which is much the best, the fragrant scent of this grass is perceptible for many yards.

J. B. MARSH.

Belmont, Pamlico River, N. C., May, 1849.

We have received the above-named grasses, for which we are much obliged. We deem the investigation of the subject of grasses one of the most important for *every section of the Union*, as their product far exceeds in value every other grown.

LETTERS FROM CALIFORNIA.—No. 3.

FINDING some leisure on my hands, I jumped into a light wherry, with half a dozen jovial spirits, at this now great place of San Francisco, and availing ourselves of a light breeze that swept over the narrow belt which separated us from the broad Pacific, we rapidly glided over the scarcely-ruffled waters of the bay northwardly. We shot past the now bright "emerald isles" of Yerba Buena, Angelos, and Molate, thence through the strait to the bay of San Pablo, thence through the bay eastwardly till we entered the strait of Karquines, which leads direct to Suissun (or Sooson,) bay, the recipient of the Sacramento and San Joaquin. Just after entering the strait, we turned suddenly to the left and pursued our way in a northerly direction through an irregularly expanding sheet of water. This was the outlet of the Napa Creek, the upper part of which was the point of our destination. The wind that had so fortunately aided us thus far, now gave out, and we had to resort to our oars, which we had taken the precaution to bring with us. The stock of eatables with which we had abundantly provided ourselves, had nerved us for the occasion, and we sped away past the varying and picturesque scenery which now presented itself to our admiring gaze.

The shores of the water which had been our route were sometimes low, flat, alluvial mud, and sometimes bold promontories, or basalt or limestone. Immovable in their jutting fastnesses of everlasting adamant, they seemed to embody the genii of the place, and nodded their stern warning to us, that we should do their country and people no harm. Up this verdant and delightful valley we pushed, till approaching night and our wearied arms invited us to repose. Not having sufficient room for the accommodation of all on board, we pitched our tent on shore, and after having kindled our fire by which we were to cook our supper and warm ourselves through the night, we dispatched our culinary and gastronomic duties, then taking

our pipes, (the almost universal companion of the huntsman and wanderers in these wilds,) we sung and joked away the evening till it was time to betake ourselves to rest. Each brought to our festive board, whatever of daring feat, or wild exploit, or romantic incidents he had learned or witnessed; and the varied and striking recitals, amid these lofty sierras and picturesque scenes by which we are surrounded, gave to the ready listeners, an interest and excitement, the placid drivellers of a drawing room or theatre, or even the wearisome inanity of the ball room at a fashionable watering place, might envy. The pure bracing air, our plain but substantial and easily digested fare, and the wholesome excitement of body and mind, gave us an appetite for sleep in which we indulged, (with the exception of the watch, whom we deemed it proper to provide against any possible depredation, and who was regularly relieved every two hours,) till the sun had fairly crowned the height of the elevated mountains. We immediately sprung to our feet, hastily cooked our morning meal, being supplied with pure water for our coffee, as in the evening before, from the adjacent stream. Then, shipping our tent, we pushed up the creek as far as navigable with our light bark, then run her ashore and made fast to a sapling, and with our arms and ammunition in hand, we bade a temporary adieu to our craft. We sought the peak of one of those lofty sierras that had bounded this valley on either side, through its whole distance. From this point, we had an almost uninterrupted view to the south, as far as our vision could discern.

The sierras here almost interlock, but gradually diverge till they reach their southern limits, when they are seven or eight miles apart. Some of these mountains, unlike the majority of those in California, are covered with lofty trees to their summits. At their base, the verdant plain stretches out to the river on either side, and with the clumps of graceful oaks which everywhere dot this valley, and the numerous herds of cattle grazing amid the foliage, the scene was one of enchantment, and would well repay the tourist for a toilsome journey of one hundred miles. The *aguas calientes*, the most noted of the numberless hot springs of California, welled out from the base of an adjoining hill, the mysterious messenger from those perhaps not remote subterranean fires, which in by-gone ages, have peopled these regions with the everlasting mountains of trap and basalt. The soil of this valley is unsurpassed among the fertile valleys by which it is surrounded. It is principally alluvial, and its formation from the fertile ingredients of the decomposing lava of the adjoining sierras, indicates clearly the causes of its fertility. It is rather to the presence of enriching salts than the accumulation of vegetable matters, that its great productiveness is owing.

There is a natural herbage here, as elsewhere throughout the well-watered and fertile portions of California, which yields the most nutritious food to cattle, horses, and other animals, which abound here. A thick coating of soft, rich pasture covers the valleys through a considerable portion of the year, commencing just after the beginning of the rainy season, and lasting till the parching heat of summer dries up every particle of moisture. Many species of these grasses ripen an abundant harvest of farinaceous seeds, which are shaken out and thrown into windrows by every passing breeze.

This is the carnival time with cattle, both wild and tame; and to the luscious repast, they assemble from mountain and glen, and load their carcasses with savory flesh and fat. It is after they have become thus surfeited with these grassy spoils, that the cattle are driven to the *mataderos*, and are there slaughtered for their hides, tallow, and jerked beef. The latter is taken from the haunches, cut into thin slices, and dried in the open air, without salt or smoke, for so dry and pure is the atmosphere at that season, that the meat is effectually cured in a short time without taint. Numerous herds of elk abound throughout the year, and at this period are so fat, as to be easily taken, when they yield 100 or more pounds of suet, which is *tried out* and retained for cooking their *frijoles*, tortillas, and other vegetable food. Bears, also, both grisly and others, are plenty and fat at this season, from the abundance of the mast and the live game, which at this time is within their reach. Deer, antelopes, wild turkeys, &c., are everywhere to be found, at this season of plenty, and all are easily accessible to the skilful hunters. Of course, all these must soon yield before the resistless march of the ever-successful Anglo-Saxon invader.

There is a species of pine here, which produces large cones, each of which contain numerous seeds of the size of medium acorns. The ground is often loaded with these, and they furnish a delicious repast to swine, cattle, deer, wild turkeys, pheasants, &c.

If nature is niggard of her cultivable acres here, owing to the large proportion of sterile lands and inaccessible sierras, she is prodigal of her bounties wherever she furnishes them within the narrow circuit of her fertile valleys. These pervade the borders of this coast, (speaking in an enlarged sense, and comprehending a space seldom exceeding 50 to 100 miles in width,) and between the lofty and frequently inaccessible hills or mountains by which they are bounded, there generally lies a secluded spot of earth, than which, no portion of the Creator's heritage furnishes a greater variety or abundance of valuable products that minister to the support of man. Everywhere, we find the stalwart maize, which here sometimes grows, (the Mexican variety,) to the height of 18 or 20 feet. Wheat is almost universally grown, as well as oats, barley, buckwheat, &c. Beans and peas are an invariable crop, the former, (frijoles,) compose a part of every meal, cooked in the fat of animals or sweet oil. Yams and sweet potatoes can be everywhere raised, and in most places the northern potato is abundant, and of good quality. Melons of great size and richness are grown, while by the side of the staples of a temperate or almost northern clime, are seen in the greatest profusion—figs, bananas, oranges, lemons, citrons, olives, and grapes, the latter of a richness and flavor that the most favored region can hardly surpass. A species of gigantic rush called *tula* grows over most of the marshes; and with thongs of leather or bark, the natives can, at a moment's notice, gather a few large bundles of these reeds, and when lashed together, they serve to raft the heaviest loads over the broadest streams.

Much of the country and many of the mountains, like those of Mexico, are bare of trees and foliage. The latter throw up their bald, naked outlines, rough and intractable alike to the efforts of the husbandman or utilitarian. But as nothing is made in vain, science may perhaps, hereafter, find in them mines of countless wealth for future generations.

But what has most gratified me, in the natural productions of this far-off world, is the magnificence displayed in the *evergreen, or live oaks.* They seem to vie in breadth, with the height of the pines further north, which often shoot up 300 feet, and of a diameter of sound trunk, reaching to 10, and sometimes to 12 feet. But of these hereafter. The oaks embody whatever of magnificence and beauty are to be found within the compass of forest vegetation; and scattered, or grouped as they often are, through these picturesque valleys, frequently shading herds of cattle, nothing can give a more engaging picture when viewed in the distance. Besides the oak, in its numerous varieties, we have the elm, the ash, the beech, birch, and the plane tree; and along the streams, the willow, the sycamore, and other water-loving trees; while clambering the hill sides, the pine, cedars and firs, of numerous varieties are everywhere to be seen. But I must defer till another time and greater leisure, any further description. * * *

Napa Valley, California,
March 10th, 1849.

HINTS ON THE MANAGEMENT OF HORSES.—No. 3.

THE food ought to be given to the horse soon after his work is completed for the day, and when he has become cool and thoroughly groomed. Much injury results from giving the animal food when heated. The stomach is then slightly inflamed and weakened, and not in a condition to act at once upon the food. Allow it time to recover its tone and vigor, and nature will then be ready to commence the important business of digestion, as soon as the food is taken, when otherwise it would remain unacted upon for some time, thus tending to injure rather than benefit the animal. It is better, too, that he be not allowed to drink freely till after eating a part of his evening meal. He will frequently drink to excess, from mere emptiness and exhaustion. After consuming a portion of his food, he may be supplied with all the water he can drink, which should be again furnished freely at morning. The supply of food ought to be greatest at night; and this should be of a nutritive, tempting kind, and in the state best prepared for assimilation. He thus fills himself at once, and lies down quietly for rest and digestion, and by the time he is called out for his morning's work, he is replenished with a renewed stock of blood, muscle, and tendon, for his labor.

The horse ought not to be overfed in the morning, nor is it necessary that he be stuffed through the day. One, two, or three feeds, in the course of the day, according to the time he is engaged, is sufficient for him; and this should not be bulky food, unless he is to rest for some time after taking it.

Severe exercise, on a full stomach, is equally injurious with full feeding immediately after heating and hard work. Nothing will sooner break down horse or man than such management. The horse should be slowly exercised when put to his work, nor should he be pushed till his stomach becomes partially empty. There is no objection to the horse having what water he wants, and whenever he wants it, with the single exception before noticed, provided the water be of the proper temperature. This will vary according to his condition and the season. When cool from his stable, the horse may drink running water, however cold it may be, even during winter. His system is at that season guarded against danger from this cause. But equally cool water, taken when warmed by exercise, or in the summer, when he is relaxed by heat, may produce cramps, spasms, or permanent disease. Water drawn up from a deep well, or bubbling up from a cold spring, ought never to be given in summer, till it has been suffered to remain some time in the open air and become warmed. It is better when the animal is heated, to dash some water on his legs, bathe his nostrils, and wash his mouth with a well-filled sponge; or let him stand in a running brook for a few minutes before drinking. This has a cooling effect, allays his thirst, and to a certain extent, supplies the want of water.

We omit for the present, any further remarks on the food of the horses, and take up the next most important subject connected with their management;—the construction of their stables.

A dry, well-aired stable is of the first importance to the health and working capacity of the animal.—The horse is a native of a warm and dry climate, and such are the conditions in which, with little skill or science on the part of man, he attains the greatest perfection, endurance, and strength, within the smallest compass. This is characteristic of the entire race of horses, throughout the parched sands of the southern Mediterranean coast, the arid plains Arabia Petræa, Idumea, Asia Minor, and no inconsiderable portion of southern Europe. And we have the most unequivocal acknowledgment of this fact in the resort to those regions for the infusion of stamina for such animals as have degenerated from inhospitable climate, improper food, or injudicious breeding. When transferred, therefore, to other countries, which are not so well suited to his constitution, and subjected to a highly artificial condition, great caution is necessary to avoid injury to his health or strength.

Stables ought never to occupy a low, confined, nor damp position. There is no objection to placing them close to the ground, nor even using the surface of it as a floor, provided the position be elevated and the soil dry. Indeed, where box stalls are used, and the animal is loose, and can have sufficient room to move freely, we think such flooring the best suited to him. We have thus kept breeding animals in perfect health throughout the winter, scarcely suffering them to pass the threshold during the entire period, and not even clearing out their stalls. Their diet, was, of course, light, and the litter occasionally replenished when it had become too damp. Where ground is not too expensive, we think this the most economical management with horses of any kind. No daily clearing of stalls is necessary, there is no waste of manure, the litter is throughly saturated with the droppings of the animals, and on the approach for warm

weather, when fermentation might be expected, all is removed at once to the fields where wanted, undiminished by washing rains or the escape of the nutritious gases. In warm weather, such stalls should be cleaned as often as may be necessary. With such stalls, there can never be danger of overheating, nor foul air, when properly ventilated; and the footing for the animals is best suited to preserve sound hoofs, as it is sufficiently soft and elastic, and yet where suffered to run loose, their frequent treading over every part maintains a proper firmness. Stables, compactly arranged, are, however, most frequently used. If built upon a clay or damp soil, the floors ought to be well raised above the surface, to allow a free circulation of air underneath, and carry off all dampness before it reaches the stable. If the floors could be conveniently raised, so as to allow of removing the compost from below, the urine might be suffered to drop from the floor directly upon it. Where this arrangement is impracticable, a slight inclination, (and only a slight one,) should be given to the floor, by which the liquid is carried to a gutter, through which it should pass directly off, and beyond the possibility of future annoyance to the animals. In addition, it is well to wash the floors occasionally, and scatter gypsum plentifully over them, to remove and absorb the constantly-accumulating ammonia. This is life to the soil, but disease to the horse; its proper disposition, is, therefore, as beneficial to the former as injurious to the latter.

Almost every disease may have its origin in damp, ill-ventilated stables, colds, coughs, catarrhs, swollen legs, grease, mange, inflammation of the eyes and throat, a rough, harsh coat, that no grooming can lay smooth, and even farcy and glanders are by some attributed to these causes. The stamina, constitution, and strength of the horse being thus impaired, his spirit flags, he becomes dulled by the incipient diseases, which are fast creeping upon him, and thus, even those preliminary evils, carry with them one half the value of a spirited animal. The underground stables, so generally used in cities, do more to wear out the horse and bring him to an untimely end, than the daily labor required of him. Much can be effected by perfect drainage, thorough ventilation, and the use of absorbents, (tan bark, sawdust, gypsum, &c.,) towards removing the humidity and deleterious gases; but where many horses are crowded into an underground room, there is hardly a possibility of their comfort and health being duly regarded. The loss which has frequently occurred from fire, where no outlet existed, except through a single door, instead of having double doors where half a dozen can be led out abreast at each end, would, on the score of self-interest, if not humanity, lead to ample provision for ventilation and escape.

Equality of temperature is highly necessary to the horse when at rest. Brick or stone stables are, therefore, more suitable both for winter and summer. Such as are protected by boards will answer every purpose when made sufficiently tight for winter.

For southern stables, so much care is not required; but it is well, even there, to have the animals guarded against the severe storms, and chilling currents of air which bring to the unprotected brute, colds, catarrhs, and a long train of insiduous and ofttimes fatal diseases. We have found in many of our southern states, that the arrangement for stabling consisted solely in providing a roof, under which, the wind passes unchecked. This is very well for much of the year, and may be tolerated, perhaps, in the extreme south; but some protection against the reflection from the hot summer sun, which would be afforded by walls, as well as the exclusion of wind in winter, would add materially to the comfort, and thereby promote the health of the animals.

To Dissolve Bones.—A correspondent in the Gardeners' Chronicle gives the following directions to dissolve bones in sulphuric acid:—Under cover, either in a manure barn or cart shed, I make a clay basin or trough, 20 feet by 10, with edges 20 inches wide and as high, into which, having previously thrown 100 bushels of half-inch bones, and having damped them, I pour from the carboys 1,700 lbs. of acid; the contents of each carboy being marked by the maker, I have not the trouble of weighing. As soon as the requisite quantity of acid is poured into the trough, two men with common iron road scrapers or long iron rakes, commence stirring, continuing so to do until effervescence subsides, two hours completing the work. I leave the mass for ten days, when, by the addition of sufficient water, I bring the whole to the consistence of a thick gruel, cinder dust being then as usual.

Prices of Special Manures in England.—We subjoin a specimen of prices paid for a variety of manures manufactured and for sale in England.

Corn and grass manure,	per ton,	£9	10*s.*
Clover manure,	"	8	0
Turnip manure,	"	7	0
Superphosphate of lime,	"	7	0
Sulphuric acid and coprolites,	"	5	0

Reckoning the pound sterling at $5, it will be seen that John Bull pays pretty roundly for his manures. One fourth the above amount expended by American farmers in saving such as they already have, would give them a greater quantity in quality and value.

Breaking Steers.—An effectual and speedy mode of breaking steers, is to use a yoke long enough to hold four bows at suitable distances. Put a strong, steady yoke of oxen on the outside and the steers inside, treat them gently and do not use the whip nor goad, and you will soon have the young ones as well broken as the old.

Guano.—The most economical application of guano is directly under or upon the seed where the roots will be sure to find it. It should be covered with earth and slightly separated from the seed. Sowing broadcast, in damp weather, upon the growing grasses or grain, is a good mode of application, but it should first be intimately mixed with several times its bulk of garden mold or well-rotted peat, swamp muck, and some plaster.

Cure for a Horse Pulling at the Halter.—Fold one ear under a small strong cord which fastens him. He will give one jerk but never a second.—*Boston Cultivator.*

Ladies' Department.

TO PRESERVE TOMATOES.

Six pounds of tomatoes first carefully wipe,
Not fluted nor green, but round, ruddy, and ripe;
After scalding, and peeling, and rinsing them nice—
With dext'rous fingers 'tis done in a trice—
Add *three* pounds of sugar. (Orleans will suit,)
In layers alternate of sugar and fruit.
In a deep earthen dish, let them stand for a night,
Allowing the sugar and juice to unite!
Boil the sirup next day in a very clean kettle,
(Not iron, but copper, zinc, brass, or bell metal.)
Which having well skimmed, 'till you think 'twill suffice,
Throw in the tomatoes, first adding some spice—
Cloves, cinnamon, mace, or whate'er you like best—
'Twill add to the flavor, and give them a zest.
Boil slowly together until they begin
To shrink at the sides, and appear to fall in;
Then take them up lightly, and lay them to cool,
Still boiling the sirup, according to rule,
Until it is perfectly clear and translucent—
Your skill will direct you, or else there's no use in't—
Then into the jars, where the fruit is placed proper,
Pour boiling the sirup, direct from the copper.
After standing till cold, dip some paper in brandy,
Or rum, or in whiskey, if that is more handy;
Lay it over the fruit with attention and care,
And run on mutton suet to keep out the air;
Then tie a strong paper well over the top—
And, "now that I think on't, the story may stop."
If you'll follow these rules, your preserves, never fear,
Will keep in good order till this time next year.

A. B.

Washington, October, 1848.

JELLIES FOR THE SICK.

To Make Panada, or Bread Jelly.—Cut a wheaten roll, or loaf, into slices, toast them on both sides, and boil in a quart of water, until the whole forms a jelly, adding more water if required; then strain, and flavor with one pound of white sugar, four ounces of red wine, and one ounce of cinnamon. Very nutritious. It may also be made with broth from which the fat has been skimmed, instead of water.

Biscuit Jelly.—Take of white biscuit, crushed beneath the rolling pin, four ounces; cold water, two quarts; soak for some hours, boil to one half, strain, evaporate to one pint, and flavor as above. Given in weakness of the stomach, dysentery, and diarrhœa.

Rice Jelly.—Take of rice, three spoonfuls; boil in water, add ten sweet and five bitter almonds, and sugar to your liking; make into an emulsion, and flavor with cinnamon, or orange-flower water to your taste.

Arrow-Root Jelly.—Take of arrow root, one ounce; rub to a smooth paste with a spoonful or two of cold water; then gradually add of boiling water, half a pint, stirring all the while. It may be thinned with more water, if desired, and flavored with milk, wine, sugar, and spices, according to the palate of the patient.

Sago Jelly.—Soak sago in cold water from an hour to an hour and a half; strain, and boil in fresh water till it becomes transparent; then add wine, sugar, clear broth, milk, prunes, or spices to flavor. One ounce of sago will make a pint of jelly.

Tapioca Jelly.—First, soak, strain, and boil the tapioca, as directed above for sago; then flavor with lemon juice and peel, wine, prunes, raisins, or spices. One ounce of tapioca will make a pint of jelly.

NOTE.—The flavoring of any of the above-named jellies may be omitted or varied, with the advice of a physician.

BEET-ROOT VINEGAR.

MANY families purchase their vinegar at a very considerable annual expense; some "make do" with a very indifferent article; and others, for want of a little knowledge and less industry, go without. It is an easy matter, however, to be at all times supplied with good vinegar, and that, too, without much expense. The juice of one bushel of sugar beets, worth twenty-five cents, and which any farmer can raise without cost, will make from five to six gallons of vinegar, equal to the best made of cider or wine. Grate the beets, having first washed them, and express the juice in a cheese press, or in many other ways which a little ingenuity can suggest, and put the liquor into an empty barrel; cover the bung hole with gauze, and set it in the sun, and in twelve or fifteen days it will be fit for use.—*Farmer's Advocate.*

COOKING MEAT.—Under-done meat is as injurious as over-done; and it is a popular error that states half-cooked meat to be more nourishing and digestible than well-done. Baked meats are less wholesome than either boiled or roasted; they become "soddened," and have an "oveny" flavor. However, a great improvement has been effected in modern kitchen ranges, and the objection is becoming less tenable. The same remarks apply to the cooking of potatoes. Frying is a process objectionable, chiefly on account of the butter employed, and the absorption of the fat into the meat.

Boys' Department.

AGRICULTURAL CHEMISTRY.—No. 14.

WHEN a field is kept under cultivation from year to year, without the application of manure, the crops continually decrease, until at length, the land refuses to yield a return sufficient to repay the expense of tillage. The reason of this deterioration is obvious. Plants, you know, extract a part of their nutriment from the soil, and but a small proportion of the soil consists of those ingredients which are capable of ministering directly to the wants of vegetation. Therefore, the land, in a few years, becomes so far exhausted as to be unable to furnish as much food as the crop requires, and it becomes necessary that it should receive a new supply of the matter that has been abstracted. This matter may be directly returned in the form of manure, or the lost fertility, may, in a measure, be restored by allowing the land to lie idle for one or more years. This last method is termed *fallowing*, of this I now purpose to treat.

Of fallowing, there are two systems—one called *naked fallowing*, consisting in plowing the fallow land repeatedly, without cropping, thus leaving it naked, and exposed to the full influence of the sun, air, and moisture, until it is supposed to be sufficiently recruited to produce a remunerating crop. The other method is to sow on the ground a fallow crop, (usually clover or buckwheat,) which is afterwards plowed into the soil. If buckwheat be sowed, it is plowed in when in blossom, and left to form a bed of humus. This mode is sometimes called *green manuring*. But the more common, and in most cases the more judicious way, is to put clover on the field, which needs fallowing, and

leave it for two or three years in pasture. By this means, the field, instead of lying idle, yields a profitable return; all the benefit ordinarily derived from fallowing is obtained; a firm sod is made, which, when turned over with the plow, forms a fine bed of humus, and the fertility of the soil is restored to a remarkable degree.

This method has almost entirely superseded the old one of naked fallowing, and is decidedly preferable, in most cases, though circumstances may occur where the other can be more judiciously practised. Thus, stiff, argillaceous, (clayey,) soils, are often very materially benefitted by repeated plowings while lying fallow, as by this means the hard lumps become divided, air and moisture are freely admitted, and the land thus becomes well prepared for sustaining a vigorous growth of vegetation.

While all are willing to admit the advantages of a fallow, all are not agreed as to the manner in which these advantages are brought about. The explanation usually given by the unlearned is, that land, after producing several crops in succession, requires *rest*, and, like a wearied animal, is recruited by repose. But this explanation conveys an erroneous impression, and shows how easily the minds of many are satisfied by substituting a *comparison*, or a *name* for a *reason*. The term *rest* is certainly very improperly employed when applied to land in the same sense in which it is used with reference to animals. I will endeavor to explain to you, in accordance with the views of some of our best modern chemists, the process which Nature adopts to reinvigorate an exhausted soil.

I told you in a former number, that soils were originally formed by the degradation and decomposition, (crumbling and wasting away,) of rocky masses, and that the solid structures were originally composed of the same inorganic constituents as are found in the soil. Now the agency which reduces rocks to the form of powder, does not cease its operations when this change is effected, but continues acting upon the mineral particles until those portions essential to vegetable life are brought to such a state as to be soluble in water, when the roots of plants can readily imbibe and appropriate them, as needed.

The progress of this decomposition is slow, and when a field is required to furnish food for a crop every year, for a succession of years, it cannot be furnished as fast as it is needed; the supply is inadequate to the demand; and time is required to allow a new accumulation, or fresh supply. Although the necessary ingredients, or food, may be in the soil, yet it is not in such a form as to be available, and Nature refuses to change her laws, or to act more vigorously than she is wont, merely to gratify the inordinate cravings of her creature, man.

And now another question arises—Can a field *always* be kept in a state of fertility by careful fallowing? I reply, it cannot. The soil does not contain an exhaustless supply of those ingredients which our crops require, and though land can be induced, by fallowing alone, to produce abundant harvests for a limited period, yet the time must arrive, when, unless manure be supplied, barrenness will ensue. There are, as I have previously informed you, sixteen elements belonging to plants, twelve of which must be furnished by the soil, and if any one of these which is required, be absent, the plant cannot mature though all other circumstances be favorable. Now, as by far the greater portion of all soils consists of matter which cannot contribute to the growth of plants, and as nearly every soil is lacking in a full supply of every ingredient which our crops require, it is unreasonable to expect perpetual fertility without returning, occasionally, to our fields a portion of those constituents which have been taken from them.

Before closing this article, I will add a few more remarks on the subject of fallow crops, or green manuring. As the crop plowed into the soil can only return to it the same inorganic ingredients which were drawn from it, we naturally inquire, what benefit can be derived from this source. The question is well worthy of consideration; for it would seem that if land can be thus enriched, it must disprove the theory that the fertility of the soil can only be preserved by returning to it, occasionally, new supplies of the matter which has been withdrawn. But the advantages of this system are only temporary, and may be thus accounted for:—

1. The bed of humus thus formed, improves the texture of the soil; allowing air and moisture to gain admittance, and these agents hasten that final decomposition of mineral particles which fits them for entering the circulation of plants.

2. The green, or fallow crop, draws nutritive principles from the air, especially carbon, and, (indirectly,) nitrogen, and these, becoming incorporated with the soil, are ready to aid in promoting the growth of the succeeding crop. (For farther particulars on this point, I would refer you to what I said on the subject of *humus* in my tenth number.)

3. The roots of the green crop, having penetrated to a considerable depth in the soil, lower than the plow has ever reached, have drawn from below such nutritive ingredients as had become deficient near the surface.

These constituents, after contributing to the formation of the stalks, leaves, &c., of the fallow crop, are again disengaged and left near the surface when this crop is buried in the soil, and are now within the immediate reach of the roots of the succeeding crop. Clover and buckwheat are well adapted for fallow crops on account of their roots extending to a much greater depth than those of most other cultivated plants.

The effect, thus produced, may be compared to that of very deep or trench plowing, as in both cases these ingredients, which lie below the reach of most plants, are brought near the surface. The roots also render the hard and compact soil beneath, into which they penetrate, more loose and porous, and thus, as in deep plowing, the texture is improved to a considerable depth. When, after sowing a fallow crop, the land is left for several years undisturbed, we must attribute much of the benefit afterwards observed to the decomposition of mineral portions, as above mentioned.

J. Mc KINSTRY.

Greenport, N. Y., April 1st, 1849.

FOREIGN AGRICULTURAL NEWS.

By the Steamer Europa, we are in receipt of our foreign journals to 2d June.

MARKETS.—*Ashes*, sales dull at present rates. *Cotton* same as per our last. *Flour* lower. *Corn* and *Meal* in good demand. *Lard* an advance of 6*d*. per cwt. *Rice* a trifle higher. In other products no change.

Money more in request, and a good demand for American Stocks.

How to Kill Ants.—Blow tobacco smoke into their burrows, which will drive them out, and then kill them.—*Gardeners' Chronicle.*

Guano as a General Manure.—Peruvian guano is the best possible manure for all plants that require manure at all, provided the soil is kept "open," by digging in leaves, &c., from time to time. The best way of using it, is by pouring water over it, and using the solution thus obtained.—*Ib.*

Death of Miss Edgeworth.—The celebrated Maria Edgeworth, the popular Irish novelist, died after a few hours' illness on Monday morning, the 21st of May, at Edgeworthstown, her native place, in the county of Longford, in her 83d year.

Interesting Discovery.—The Paris correspondent of the Courier des Etats Unis describes a marvellous discovery which has recently been made, relating to the important subject of coloring grey hair. This new system consists in bringing about the internal coloring of the hair. The discovery is borrowed from the Chinese, who have succeeded in reaching and transforming, by means of medicine and a peculiar diet, the liquid which colors the pilous system and giving to white and red hair a black tint, which maintains itself during the continued growth. It is by this method, it is said, that the Chinese have been able to claim the title from the highest antiquity of the black-haired nation.

Famine in Ireland.—The distress in the county of Clare is represented to be most dreadful. In the course of two days, there were twelve ascertained deaths from starvation, in the parish of Kilmury, Ibrickane, in which there are 1,500 people who have not a morsel of food, and who are not on the relief lists.

Naturalization of the Alpaca in France.—A company has been formed in France, under the direct sanction of the government, for the purpose of naturalizing the alpaca upon a large scale. It is thought that the Alps, the Pyrenees, and the mountains of Auvergne are admirably adapted for the support of very large numbers of this valuable animal, and will prove of immense benefit to the country. Since the wool of the alpaca was first introduced into France, its price has tripled, and it is expected to rise still more, especially as the Peruvians have adopted measures to cultivate a branch of commerce which is daily becoming of more value. In order to secure, if possible, a monopoly of the trade, the Peruvian government has prohibited the exportation of the animal.

Treatment of Bees.—Mr. J. Oates, of Tendring Hall, gives the following as his treating of bees:—I make a hole in the ground, then place an empty hive upside down, as nearly as possible the size of the one I intend to fumigate; I then place my little apparatus, which contains a piece of lighted fungus about the size of a hen's egg. When the smoke begins to rise, I place the hive which contains the bees over it; and then, with a cloth wrapped round them to prevent any escape of the perfume, in five minutes, they will be perfectly stupified. I then give the hive two or three gentle taps, which will cause those that are hanging to the comb to drop into the hive below. I then spread a large white cloth and turn the bees on it, when I can examine them with perfect safety. I let them remain until the second hive has undergone the same process. I add these, also, to those on the cloth. I then look for the queens, but have not at all times been successful in finding them both. If I find both, I kill one; but my friends tell me this is not necessary, as I need not go to that trouble, for the bees will kill one themselves, and not have two mistresses in one house. I then mix them together and put them back into that hive which has the most honey in it. I consider this a better plan than burning them. Hitherto, mine have done well. I have done several for my neighbors, which have also done well, and they are at the present time strong.

A Fox Lair.—The keepers and laborers of Mr. Legh, of Adlington, suspecting that there was a brood of foxes in the park, set to work to dig them out on Saturday last, when they found six cubs; and in the course of their digging in the hole, they found the following ample stores provided by their parent in a greater or less state of preservation:—the remains of one barndoor fowl, of four pheasants, one wild duck, two leverets, eighty rabbits, one jackdaw, one thrush, five rats, two mice, and one lamb. Some of these were nearly whole and fresh, others in a state of decomposition.—*Macclesfield Courier.*

Greedy Asses.—Two donkeys lately strayed into a field near Ruthin, and attacked a stack of hay. They ate so far into the foundation that the stack fell over and buried them. The owner of the hay, seeing it in a heap, went to cart it home, when, to his surprise, he found the two asses under it. They were not much injured.—*North-British Daily Mail.*

Hydraulic Press for Raising Britannia Bridge.—On Wednesday, the 13th December, the large cylinder of the hydraulic press, intended to be used at Bangor, to raise the tubes of the bridge of the Chester and Holyhead Railway, was cast at the Bank-Quay Foundry, Warrington. This cylinder is, we believe, the largest ever made for hydraulic purposes, and weighs about 25 tons. It will have to sustain a pressure of upwards of 1,000 tons, when at work.

Tobacco Culture in Great Britain.—At a late meeting of the Royal Agricultural Society of England, the Duke of Richmond presented to the Council a specimen of the dried leaves of the tobacco plant, grown at Chelsea. His Grace also favored the Council with the following statement made by the party from whom he had received the specimens then submitted to the inspection of the members:—

Every person cultivating fruits, vegetables, or flowers, especially in the forcing department, have been plagued to keep their houses and plants free from the numerous aphides to which they are subject, and to effect this without injury to the tender plants under cultivation, tobacco is, at present, the only known safe and sufficient resource, and there are but few who have not found it more convenient and safe to make purchases of this essential article, notwithstanding its costliness, than trust to uncertain remedies. Among this number, the writer is obliged to place himself; but not until he had made many attempts to save or lessen an expenditure so unsatisfactory. Thus circumstanced, about the month of March, 1848, a gentleman, living in his immediate neighborhood, who had been induced to attempt the cultivation of tobacco for his own consumption, the use of which he had found it expedient to discontinue, kindly offered his remaining stock to the writer, for the purpose of fumigating his plant-houses; and, on making a trial, it was found a most valuable article for the purpose, and far excelling anything in efficiency he had ever before used. Information as to the mode of its preparation, and the particular variety, was fully obtained, and a determination to cultivate a sufficient quantity for all future purposes resolved upon.

Editors' Table.

Mr. Solon Robinson.—It is mere neglect on our part, that we have not, from month to month, chronicled the movements of this distinguished farmer and writer upon agriculture. In our last volume, we informed our readers that Mr. Robinson left his residence at Lake Court House, (now Crown Point,) Indiana, in November last, in his private carriage, with a pair of horses, on an agricultural tour and survey through the southern states, and also to act as our agent; since which he has passed through the intermediate states, between Indiana and Louisiana, and over much of the latter below New Orleans, then up through Mississippi, Alabama, Georgia, South and North Carolina, Virginia, Maryland, Delaware, and when last heard from, June 17th, he was in Pennsylvania. He will probably reach New York about the 1st of July.

We venture to say that not another man in the United States ever made such a tour, or gathered so much information as this enterprising traveller has obtained of the agriculture of his country. Sugar, rice, cotton, tobacco, hemp, flax, wheat, Indian corn, grass, and nearly all other North-American products have received his special attention, together with the general management of plantations, farms, stock, &c. He has taken copious notes during his long and fatiguing journey, the substance of which will appear from month to month in our paper.

What his course from New York will be, is somewhat uncertain. Information as to this, and some general remarks on his tour, will be published in our August number. In the mean time, we are happy to inform our readers, that, notwithstanding many a mishap and peril by flood and field, his general health has been good, and that he writes us in the best of spirits, happy as ever, in his patriotic and arduous undertaking.

Gold Dollars.—These pretty little coins, which are somewhat smaller than half dimes, have recently been issued, in considerable quantities, from the United States Mint, and will prove exceedingly convenient for transmitting through the Post Office for the payment of *dollar periodicals*, &c., from those states not authorizing the circulation of small bank notes. A word to the wise is sufficient.

The Plow a Bank-Stock Holder.—The plow, it is said, goes in for *banks*, although it holds but *one share*.

Long-Woolled Sheep.—We call attention to Mr. Reybold's advertisement of a superior lot of long-woolled bucks for sale. Mr. R. has taken great pains in selecting his sheep from the best flocks in England. He has bred them here with much care, and all those who have called to see them, speak highly of their excellent qualities.

Maple Sugar in Vermont.—We learn that, the past season, on account of its cold and backwardness, has proved unusually favorable for the sugar crop, in Vermont, the trees averaging a yield of about four pounds of sugar each. Caleb Aldridge, of Sutton, from 1,700 trees, made 6,000 lbs. sugar; Mr. Noyes, made 2,000 lbs.; Woolston Brockway, from 300 trees, made 900 lbs.; Harlow Brooks, from 350 trees, made 1,300 lbs.; and Ferdinand Walker, of Lyndon, from 400 trees, made 1,700 lbs. These amounts are exclusive of the last run, or molasses, being all stirred sugars, equaling in color our muscovado, and are worth at least six cents per pound.

Machine for Removing the Burrs from Wool.—We have frequent inquiries for a machine for the above purpose, small enough to be run by horse power, and of so simple, yet efficient construction, as to be used by planters in the country. Will any of our readers, familiar with a good machine, inform us where it is to be had, price, &c.

Georgia Burr Stone.—The "Savannah Georgian" notices the existence of a burr-stone quarry, in Burke county in that state, near the line of the Central Railroad leading to that city. The stone obtained from this quarry, the only one of the kind yet discovered in the United States, is said to be equal and in some respects superior to that of the French quarries. A company has been organized, in Savannah, who are preparing to go extensively into the business of manufacturing millstones from it, and expect to be able to supply the demand of this country with as good an article as is now procured from France.

Pork Packing.—The St. Louis Republican, in a late number, gives the total number of hogs slaughtered, this year, on the Mississippi, Missouri, Illinois, and other rivers adjacent thereto, at 568,760, and the total number in the entire west, at 1,581,000, being an increase of 81,000 over last year's killing. The number slaughtered in St. Louis was 90,000.

Report on the Bread Stuffs of the United States, made to the Commissioner of Patents. By Lewis C. Beck, M. D., 1849. This brief report embodies much valuable information on the comparative value of different varieties of wheat, Indian corn, &c., grown under a variety of circumstances. It also contains the results of several analyses of sound wheat, produced in our own country and elsewhere, the extremes of which stand thus:—

	Lowest.	Highest.
Proportion of water, in 100 parts,	11.75	14.05
" Gluten, " "	8.31	16.00
" Starch, glucose and dextrine, "	68.65	79.34
" Bran, "	0.20	2.90

The highest proportion of gluten was found in a sample of Kubanka wheat, grown on the Kuban River, in the southern part of Russia. A sample from Floyd Co., Georgia, afforded 14.36 per cent.

The result of these investigations corroborate what we have before asserted, that the *gluten, the nutritive portion of the grain*, is more fully developed in a dry, hot climate, and when grown upon a rich soil.

The value of wheat for *nutritive purposes* does not depend upon its superior whiteness, as much of that which is of dark color contains a large proportion of gluten. Spring wheat, that uniformly brings a much lower price in market, is rich in gluten, and frequently of equal value with the best winter wheats, which sell at 15 to 30 per cent. higher. We regret that Dr. Beck has omitted all investigation of spring wheat in this report, as well as the comparative nutritive properties of rye, maize, buckwheat, barley, &c. We shall hope for full and minute information on each of these valuable grains, which he intimates he may give, in part at least, hereafter.

Monster Apple Trees.—There is an apple tree on the estate of Mr. Joseph Briggs, on Federal Hill, in the town of Dedham, Mass., supposed to be about one hundred years old, which measures thirteen feet and a half in circumference, one foot from the ground, and eleven and a half feet, four feet from the ground. Its branches cover an area of about sixty feet in diameter. This tree is second only to that in Duxbury, which is sixteen feet in diameter a foot or two above the surface of the ground, is over one hundred years old, and bore, in one year fruit, which made ten barrels of cider, in addition to thirty barrels of apples put into the cellar.—*Boston Traveller.*

Artesian Wells.—The corporation of Charleston, S. C., are endeavoring to obtain water in sufficient quantity for the extinguishment of fires, by means of Artesian wells. In one instance, the earth has been perforated to the depth of 750 feet, through a bed of marl, without reaching water. In others, the water has been reached at a much less depth.

REVIEW OF THE MARKET.

PRICES CURRENT IN NEW YORK, JUNE 16, 1849.

ASHES, Pots,	per 100 lbs.	$5 50	to	$5 63
Pearls,	do.	5 50	"	5 62
BALE ROPE,	lb.	9	"	11
BARK, Quercitron,	ton,	28 00	"	30 00
BEANS, White,	bush.	75	"	1 25
BEESWAX, Am. Yellow,	lb.	19	"	22
BOLT ROPE,	do.	11	"	12
BONES, ground,	bush.	40	"	55
BRISTLES, American,	lb.	25	"	65
BUTTER, Table,	do.	15	"	25
Shipping,	do.	9	"	15
CANDLES, Mould, Tallow,	do.	10	"	13
Sperm,	do.	25	"	40
Stearic,	do.	20	"	25
CHEESE,	do.	5	"	10
COAL, Anthracite,	2,000 lbs.	5 00	"	6 00
CORDAGE, American,	lb.	11	"	13
COTTON,	do.	6	"	10
COTTON BAGGING, Amer. hemp,	yard,	15	"	16
FEATHERS,	lb.	30	"	40
FLAX, American,	do.	8	"	9
FLOUR, Northern, Southern and West'rn	bbl.	4 18	"	5 12
Fancy,	do.	5 50	"	6 75
Richmond City Mills,	do.	6 75	"	7 00
Buckwheat,	do.	—	"	—
Rye,	do.	2 88	"	3 00
GRAIN—Wheat, Western,	bush.	1 05	"	1 30
Red and Mixed	do.	90	"	1 10
Rye,	do.	58	"	59
Corn, Northern,	do.	60	"	65
Southern,	do.	62	"	62
Barley,	do.	52	"	55
Oats,	do.	29	"	40
GUANO, Peruvian,	2,000 lbs.	47 00	"	50 00
" Patagonian	do.	30 00	"	35 00
HAY, in bales,	do	36	"	50
HEMP, Russia, clean,	ton.	215 00	"	230 00
American, water-rotted,	do.	160 00	"	220 00
American, dew-rotted,	do.	140 00	"	200 00
HIDES, Dry Southern,	do.	8	"	9
HOPS,	lb.	4	"	12
HORNS,	100.	2 00	"	10 00
LEAD, pig,	do.	4 70	"	4 75
Pipes for Pumps, &c	lb.	5	"	7
MEAL, Corn,	bbl.	2 87	"	3 00
Corn,	hhd.	13 75	"	14 00
MOLASSES, New Orleans,	gal.	20	"	26
MUSTARD, American,	lb.	16	"	31
NAVAL STORES—Tar,	bbl.	1 75	"	2 00
Pitch,	do	1 25	"	1 75
Rosin,	do.	80	"	90
Turpentine,	do.	2 31	"	2 62
Spirits Turpentine, Southern,	gal.	32	"	33
OIL, Linseed, American,	do.	58	"	60
Castor,	do.	1 25	"	1 50
Lard,	do.	60	"	70
OIL CAKE,	100 lbs.	1 00	"	1 50
PEAS, Field,	bush.	75	"	1 25
Black-eyed,	2 do	1 25	"	1 50
PLASTER OF PARIS,	ton.	2 00	"	2 75
Ground, in bbls.,	of 300 lbs.	1 12	"	1 25
PROVISIONS—Beef, Mess,	bbl.	9 00	"	13 50
Prime,	do.	5 00	"	8 50
Smoked	lb.	6	"	12
Rounds, in pickle,	do.	4	"	6
Pork, Mess,	bbl.	10 00	"	13 00
Prime,	do.	7 00	"	10 50
Lard,	lb.	6	"	7
Bacon sides, Smoked,	do.	3	"	4½
In pickle,	do.	3	"	4
Hams, Smoked,	do.	5	"	9
Pickled,	do.	4	"	7
Shoulders, Smoked,	do.	4	"	5
Pickled,	do.	3	"	4
RICE,	100 lbs.	2 88	"	3 50
SALT,	sack,	1 17	"	1 30
Common,	bush.	20	"	35
SEEDS—Clover,	lb.	5½	"	—
Timothy,	bush.	2 00	"	3 50
Flax, clean	do.	1 30	"	1 40
rough,	do.	1 20	"	1 30
SODA, Ash, cont'g 80 per cent. soda,	lb.	3	"	—
Sulphate Soda, ground,	do.	1	"	—
SUGAR, New Orleans,	do.	4	"	6
SUMAC, American,	ton,	35 00	"	37 00
TALLOW,	lb.	7	"	8¼
TOBACCO,	do.	3	"	8
WHISKEY, American,	gal.	21	"	23
WOOLS, Saxony,	lb.	35	"	60
Merino,	do.	25	"	35
Half-blood	do.	20	"	25
Common do		18	"	20

NEW-YORK CATTLE MARKET.

At Market.—1,500 Beef Cattle, (1,300 southern, the remainder from this state and east,) 50 Cows and Calves, and 4,000 Sheep and Lambs.

Beef Cattle.—The market is firm in prices. The sales run from $7 to $9 per hundred. The number of head on hand, unsold, is estimated at 175.

Cows and Calves.—These vary from $22.50 to $47.50.

Sheep and Lambs.—Sheep sold at 62½ cents to $5.50 each; Lambs at $1.50 to $3.75. The number left unsold, 700.

REMARKS.—The past has been a very dull month and no change scarcely in prices.

The weather continued quite cold for the season till the 15th of June, when it came on hot. Although every thing is backward, still the crops are promising. Wheat and Rye never looked better. The former is now harvesting at the south, and turns out finely. Grass is very heavy on the ground. Potato and other root crops are growing well. Of fruit, we have good prospects.

The Cholera is among us, but in so mild a form as to occasion but few deaths and little alarm. No one has anything to fear who takes good care of himself.

TO CORRESPONDENTS.—Communications have been received from James B. Davis, A. L. Elwyn, C., Solon Robinson, C. R., Synches Creek, M. W. Philips, Samuel Allen, and Reviewer.

To Destroy Rose Bugs.—S. R. of Newark.—Collect them in a bucket of water, and then crush or burn them to death.

ACKNOWLEDGEMENTS.—Premiums and Regulations of the New-York State Agricultural Society, for the Annual Show to be held at the City of Syracuse, September 11th, 12th, and 13th, 1849; An Address delivered before the Jefferson Agricultural Society, of Green County, Georgia, by James M. Davison, in November, 1848; also, several printed sheets from the forth-coming Transactions of the N. Y. State Ag. Society, from B. P. Johnson. Esq.

PERUVIAN GUANO

FOR Sale, at Bating Hollow, Long Island, by
jy3t AZEL DOWNS.

VIRGINIA LANDS.

THE attention of Northern Farmers who wish to purchase in Fairfax County, Va., is invited particularly to two farms for sale, three miles east from Fairfax Court House, thirteen from Alexandria, and fourteen from the city of Washington. There are no buildings on either tract, but, by following the custom of the country, comfortable and temporary ones can be cheaply built. The soil is well adapted to farming purposes, and there is timber on them, near two sawmills.

These farms would sell in the north, for from $50 to $100 per acre, and can be bought here in a more pleasant and healthy climate, one for eight, the other ten dollars per acre, on easy terms, and a good title given.

Further information given, if requested, by T. R. Love, trustee, either personally, or by letter, (postage paid,) directed to Fairfax Court House, Va.

f. tf. H. FULLER.

STATIONERY, BLANK BOOKS, AND PAPER.

Francis & Loutrel, No. 77 Maiden Lane, N. Y.

MANUFACTURE all kinds of Blank Books and Stationery articles—Diamond Point Gold Pens—Letter Copying Presses—Manifold Letter Writers—superior Croton Ink, warranted to retain its jet-black color, which they sell at the very lowest prices.

We have also on hand every description of Foreign PAPER and STATIONERY—Cap, Letter, and Note Papers, Envelopes, Perforated Board, Bristol Board, Drawing Papers—Copy Books, Pocket Books, Card Cases, Port Folios, Scrap Books—Gold Paper, Tissue Paper—Chess Men, Backgammon Boards—Wax, Wafers, Slates, Pencils—Gold and Silver Pencil Cases—Writing Desks—Work Boxes—Quills—Tin Cash and Deed Boxes—and all articles kept by Stationers, at remarkably low prices.

Books suitable for County Clerks and Public Offices supplied. Printing, Ruling, and Binding executed at the lowest rates.

☞ We should be pleased to have a call from those requiring articles in our line. Orders by mail will receive attention.

LEWIS FRANCIS, CYRUS H. LOUTREL, } FRANCIS & LOUTREL, *Stationers, 77 Maiden Lane, N. Y.*
Sept.1yr*.

AYRSHIRE HEIFERS.

WANTED by the last of October next, two Ayrshire heifers, from six to eight months old. They must be from approved milking families. Please to state price, delivered in this city.

jy 3t SAMUEL ALLEN, 189 & 191 Water st., N. Y.

COMMERCIAL GARDEN AND NURSERY.

PARSONS & CO., at Flushing, near New York. The proprietors of this establishment invite public attention to their large assortment of every desirable variety of Fruit and Ornamental Tree or Shrub. Their importations of everything new in Europe are annually continued, and they offer a very large variety of Ornamental Trees and Shrubs imported expressly for arboretums and pleasure grounds. Their collection of Roses is annually enriched by novelties from abroad, many of which may be found described in their new work on the Rose, recently published. Fruit Trees receive their particular attention, and are propagated under their personal supervision; this care, with their possession of extensive specimen grounds, in which is tested every variety of fruit they cultivate, enables them confidently to guarantee the genuineness of the varieties.

Their care in pruning and cultivation enables them also to send out thrifty and well-formed trees. From their large scale of propagation, they can offer to dealers very liberal discounts, where hundreds or thousands are taken. Orders or inquiries can be addressed to the proprietors at Flushing, near New York, where catalogues will also be furnished. They have established a Branch at Brighton Depôt near Boston and by the entire success of their trees transplanted thither have thoroughly proved the superior adaptation of Long-Island Trees to the soil and climate of any part of New England. This they attribute to the perfect maturity attained by the wood before frost, which renders the trees suitable for transportation to any latitude.

At the season of transplanting, a salesman will be at their Brighton Branch to furnish those who may prefer obtaining their supply thence. mhtf

VIRGINIA LANDS.

FOR SALE. No. 18. 431½ acres on Stony Creek, 18 miles south of Petersburg, and 1¼ miles west of the great Southern Railroad, with dwelling and out buildings; two thirds of this is rich bottom, well cleared and drained, and very productive of grain and grass. Price $5 per acre. Terms very favorable.

No. 19. 425 acres adjoining, half cleared; the remainder in heavy timber. Price $4.

No. 20. 264 acres adjoining, good soil and excellent meadow, on Stony Creek; has a house with two rooms, ⅔ are cleared. Price $4.

No. 21. 300 acres in Sussex county, 2½ miles from the railroad; half cleared; the balance in heavy oak and pine, adjoining the Sawmill Tract. Price $3.50 per acre.

No. 22. 150 acres adjoining the above, on Sapony Creek, with grist and sawmills; a good location for a factory; ¾ cleared, with a farm house. Price $2,500, in 1, 2, and 3 years; or $2,000 cash.

No. 23. About 1,200 acres, 8 miles from Petersburg, adjoining a large tract settled by Jerseymen; it has good buildings; a gristmill, with plenty of water for a sawmill in addition. The open land is good and productive, and a large portion is in heavy timber. This may be had at a great bargain, on favorable terms.

No. 24. 2,000 acres near the Summit Depôt, on the great Southern Railroad, miles from Petersburg, mostly cleared, but with plenty of wood; it is well watered; the soil good and adapted to the growth of grain, grass and cotton; it has a large dwelling with every necessary outhouse, in good order. Price $3 per acre.

No. 25. 1,000 acres on the Roanoke, in sight of Gaston, N. C. On this are three islands and other excellent low grounds, in good heart for wheat, corn, and grass; the river furnishes a very heavy water power, belonging to this tract. Price, $6 per acre.

No. 26. 378 acres on Nottaway River, which affords fine and unfailing water power; it has one mill east of the railroad; ⅔ cleared, the balance in good timber; the soil is excellent. Price $2,000. Payments easy.

No. 27. 360 acres, one mile west of the railroad, with good house for a small family; ⅔ in cultivation, ⅓ in good timber; it is 2½ miles from Stony-Creek Depôt. Price $3 per acre; half cash, the balance in 1 year.

No. 28. 927 acres, 19 miles southwest of Petersburg, on Stony Creek; ½ cleared, the balance in good timber; good grist and sawmills, near, which are also for sale; it is well watered and has a number of fine springs; the buildings are excellent, and much of the soil is now very productive; Price $4.50 per acre; ¼ cash, the balance in 1 and 2 years.

No. 29. 700 acres on Stony Creek, 3 miles from Dinwiddie Court House; ⅓ cleared, the balance in heavy timber; it is well watered, has fine springs near the house; mills, churches, schools, and stores convenient. The dwelling and out-buildings are good. Price $4 per acre; terms liberal.

No. 30. 350 acres, 4 miles southeast of Petersburg; 100 open and in good state of cultivation, the balance in wood; the dwelling is good and well situated, with a good garden.

No. 31. 150 acres, 12 miles south of Petersburg; 100 in cultivation, the balance in wood of original growth; there is a 2-story frame house with five rooms; plenty of marl near; it has on it an orchard of good fruit; it is within 3 miles of the railroad. Price $1,200; ¼ cash, the balance in 1 and 2 years.

No. 32. 67 acres, half open, the balance in wood, on the railroad, 6 miles south of Petersburg; with plenty of marl; small, but comfortable house. Price $300.

No. 33. 566 acres on Appomattox River, 10 miles above Petersburg; about 150 acres in cultivation, with good meadow ground, heavy oak, hickory, &c., &c. Good house and out buildings, and heavy water power on the river, with canal to Petersburg. Price $5 per acre.

No. 34. 900 acres on the Southern Railroad, 9 miles from Petersburg; near one half is open and arable. The timber is good and of large size; it is well watered and has excellent meadow land, good new dwelling and out-buildings. There is plenty of marl near. This place is near a large tract purchased and settled by Jerseymen. Price $6,000.

No. 35. 125 acres near the railroad, 7 miles from Petersburg, chiefly in excellent heart, pine and oak timber, without little cleared land. Price $5 per acre.

No. 36. 1,150 acres in Dinwiddie, 27 miles from Petersburg, about one half open, with excellent meadows; it is well watered and would make several excellent stock farms. The timber is principally hickory and oak; it is well fenced, and will be sold for $3 per acre, ¼ cash, and the balance in 1 and 2 years; or it will be leased to good farmers on most favorable terms.

No. 37. 400 to 500 acres in Brunswick, 32 miles from Petersburg, ½ cleared, excellent land and well watered. The timber is heavy oak and pine. Price $1.50 per acre.

Also, a number of other properties eligibly situated and at very low prices. The subscriber has recently examined several of these properties, and can with confidence, recommend them to his friends. On many of them good crops can be raised in their present condition, and all of them are susceptible of easy and great improvement; the country is healthy and the neighbors kind and hospitable. All letters, post paid, asking for information, will be promptly answered.

jy 1t SAMUEL S. GRISCOM, Petersburg, Va.

MORSE'S GREY.

THIS celebrated horse will stand the ensuing season at the stable of James Rice in Speigletown, three miles north of the village of Lansingburgh. He is a beautiful dapple grey, 15¾ hands high, strongly and finely proportioned, has trotted his mile in 2 minutes and 50 seconds, is a square trotter, and combines first-rate trotting qualities and great powers of endurance, with unsurpassed gentleness and docility. His colts are justly celebrated for speed, bottom, and good temper, and are eagerly sought after in the market, and command prices ranging from $150 to $500. The very high reputation of his stock as road horses, and the extraordinary prices they command, renders him by far the most profitable horse to breed from of any in the country. Mares sent from a distance will have such attendance and keeping as the owners desire, and upon the most reasonable terms. The horse will be under the charge of his former owner, Mr. Calvin Morse. Terms, $10 the season. Insurance to be agreed upon. Communications addressed, J. T. GRANT, P. M. Junction, Rensselaer county, will receive prompt attention. my 3t

ROCK SALT.

THIS Salt is as hard as alum, and is the best known. It comes in large lumps, and is the most *suitable and economical* kind for stock. It may be placed on the ground in the open field where it will be exposed for years to the weather with but little waste. It is the best kind to put in a rack, manger or trough, to be licked by horses, cattle, and sheep, as they may desire. By this means stock never get an excess, or suffer injury from its use. Price $1 per hundred pounds, for a single barrel, or 75 cents per hundred pounds for larger quantities.

A. B. ALLEN & CO., 189 and 191 Water street, N. Y.

NEW-OXFORDSHIRE LONG-WOOLED BUCKS.

FOR SALE, 30 or 40 bucks of this well-known flock, at any time gentlemen may please to call, as the subscriber has determined not to hold another annual sale. To those unacquainted with the quality of these sheep, it may be necessary to remark that they will shear from 9 *to* 14 *pounds of washed wool*, and when full fatted, weigh 300 *pounds*, and that they are bred from some of the best long-wool sheep ever imported; which were selected by the subscriber from an English prize flock. CLAYTON B. REYBOLD,

jy 3t Delaware City.

LAND FOR SALE.

FOR SALE—2,000 acres of land lying in the marl region of Eastern Virginia, and within two to seven miles of the town of Fredericksburg. Apply to LAYTON Y. ATKINS,

dec. 1yr. Fredericksburg, Va.

PREMIUM HAY AND STRAW CUTTERS.

NEW and splendid Rotary Cylinder Straw Cutters, simple, strong, and easily worked. For sale at reduced prices by

A. B. ALLEN & CO., 189 and 191 Water street, N. Y.

VIRGINIA FARM

FOR SALE, within 16 miles of Richmond West, on James River, known as "Claremont," and containing 253 acres more or less. The James-River and Kanawha Canal runs through the property. The selection is one of the most lovely and pleasant on the river, commanding a splendid view of the surrounding country. The land is mostly yellow clay bottom and well adapted to wheat, Indian corn, Irish potatoes, and oats. There is a fine orchard of apples, pears, cherries, and peaches. The buildings are mostly new. The dwelling has about ten rooms all newly done up in first-rate style, good water all about the premises. The canal boats passing every hour, offer a cheap conveyance for all kinds of produce. There are two churches, a school, a tavern, physician, and Post Office all near. And there is a market on the border of the farm for all meats, vegetables, eggs, butter, &c. It also affords a fine stand for a country store, a crop now on the place. Terms easy. Apply, post paid, to

jy 1t* B. B. ALLEN, 19 Platt st., N. Y.

OFFERED

FOR Sale, the equal one half interest in a *Nursery* of Fruit and Ornamental Trees, permanently established, and beautifully located in New Jersey, within two hours' ride per railroad, of New York—six train of cars passing daily alongside, and in full view of the nursery. The depôt, within five minutes' walk of the grounds—containing from 50 to 100,000 thrifty seedling plants, a portion of which are ready for market—the greatest part ready for working this season. No other nursery in the place.

This is a rare offer, circumstances obliging one of the proprietors to make a change. The whole can be had if particularly required. For confidential particulars, address, *post paid*,

J. J. SCOFIELD,

jy 1t Morristown, Morris Co., N. J.

KAGENBUSCH'S MANURE AT ONE CENT PER POUND!

FOR SALE, a few tons of Kagenbusch & Co's Germinating Compound at the price named above. This valuable manure is composed of fertilizing materials and is designed for growing garden vegetables, fruit trees, vines, ornamental flowers, or plants, of all descriptions, as well as for general crops.

jy A. B. ALLEN & CO., 189 and 191 Water st., N. Y.

TO DAIRYMEN.

FOR SALE, Kendall's Cylinder Churn, of various sizes; Cylindrical Thermometrical Churns; Atmospheric Churns; Patent Self-acting Cheese Presses; Dog Powers of different paterns, all constructed on the latest and most approved principles, and adapted to dairies of all sizes.

A. B. ALLEN & CO.,

jy 189 and 191 Water St., N. Y.

EMPLOYMENT WANTED.

GERMAN Mechanics, Farmers, Laborers, Porters, and Workmen, for any kind of business, as well as male and female servants, may, at all times, be obtained, and sent free from any charge to all those who may want them, from the Office of the GERMAN SOCIETY,

No. 95 Greenwich st.,N. Y.

New York, May 5th, 1849.

jn 2t*

PATENT FANNING MILLS AND GRAIN CRADLES.

GRANT'S celebrated Fanning Mills and Grain Cradles have been awarded six first premiums at the New-York State Fairs; also, at the American Institute of New York and several County Fairs. Wherever exhibited, they have taken the first premium over all other mills. The great encouragement we have received from dealers and agriculturists has induced us to enlarge our business. All orders will receive prompt attention. J. T. GRANT & CO.,

Junction P. O. Rens. Co., N. Y., 8 miles north of Troy.

The above mills are also for sale by A. B. ALLEN & CO., 189 & 191 Water street, New York. my 6t

MINER'S EQUILATERAL BEE HIVE.

THIS is the most beautiful and practically valuable hive ever before offered to the public. It only needs to be seen in all its parts, to convince any man of its merits over anything of the kind in existence. Price $5, with an individual right, and full engravings of it, with ample directions in pamphlet form to make the same; together with the right, as above, for $2, only. Moneys remitted by mail at our risk. Sent to any part of the United States or Canada.

mr3t A. B. ALLEN, & CO., 189 & 191 Water st., N. Y

ALLEN'S FARM BOOK.

SEVENTH EDITION; Enlarged.

THE AMERICAN FARM BOOK, or compend of American Agriculture; being a practical treatise on soils, manures, draining, irrigation, grasses, grain, roots, fruits, cotton, tobacco, sugar cane, rice, and every staple product of the United States, with the best methods of planting, cultivating, and preparation for market. Illustrated by more than 100 engravings. By R. L. Allen, author of Diseases of "Domestic Animals," and editor of the "American Agriculturist;" together with Browne's Memoir on Indian Corn, including Barlow's celebrated Poem. Published and for sale by

C. M. SAXTON, 121 Fulton st., N. Y.

FLUID FOR PURIFYING VAULTS.

LE DOYEN'S PATENT DEODORIZING, OR DISINFECTING FLUID, designed for destroying putrid smells arising either from animal or vegetable decomposition; also, for immediately purifying sick rooms, water closets, cesspools, steerages of passenger ships, bilge water, &c., &c.; but mainly for destroying the odor of night soil and converting it into a fertilizing compound applicable as a manure. Quantity required to deodorize a common privy, for three or four months, from two to five gallons. Price, 50 cents per gallon. For sale by

A. B. ALLEN & CO.,

189 and 191 Water st., N. Y.

WATER RAMS.

FOR SALE, Superior Water Rams, which, if applied to a large or small stream of water where there is *one* or *more* feet fall, a portion of said stream may be forced up, by its own power, to a height of 50 or 100 feet. The quantity of water raised will vary according to the height of the fall, the size of the stream, and the capacity of the ram. For instance, any one possessing a spring, or stream of water, that will discharge 8 or 10 gallons per minute, and can stop up the stream by a dam, so as to make a fall of 8 or 10 feet, by means of one of these machines, a constant stream, from a half-inch pipe, can be delivered at an elevation of 85 feet. Prices from $12 to $16—pipe extra. For prices of lead pipe, see advertisement.

Take Particular Notice.—Persons making application for these rams, by mail, or otherwise, are requested to name the *size* of the stream, or *quantity of water running in it per minute*, the *amount* of the fall they are able to produce, the *height* the water is desired to be raised, and the *distance* it is wished to be conveyed.

my A. B. ALLEN & CO., 191 Water street, N. Y.

LEAD PIPES FOR HYDRANTS, PUMPS, &c.

Of ⅜	inch calibre,	weighing from	1 lb. 8 oz.	to	3 lbs. 8 oz.	per yd.
" ½	"	"	1 " 14	"	6 do 6	"
" ⅝	"	"	2 " 8	"	8 do 4	"
" ¾	"	"	3 " 8	"	10 do 8	"
" 1	"	"	5 " 10	"	14 do	"
" 1¼	"	"	6 " 12	"	17 do 8	"
" 1½	"	"	11 "	"	19 do	"
" 2	"	"	16 " 12	"	27 do	"
" 2½	"	"	23 " 8	"	50 do	"
" 3	"	"	28 "	"	59 do	
" 3½	"	"	45 "	"	80 do	
" 4	"	"	49 "	"	90 do	
" 4	"	Water Pipe			15 do 14	"
" 4½	"	"	"		17 do 4	"
" 5	"	"	"		34 do	"

Price of the above pipes from 5½ to 7 cents per lb. Tinned pipe, ½ cent per lb. extra.

A. B. ALLEN & CO., 189 and 191 Water st., N. Y.

MINER'S BEE KEEPER'S MANUAL.

THE AMERICAN BEE KEEPER'S MANUAL; being a practical treatise on the history and domestic economy of the honey bee, combining a full illustration of the whole subject, with the most approved methods of managing this insect through every branch of its culture, the result of many years' experience. By T. B. Miner. Embellished by thirty-five beautiful engravings. For sale by

C. M. SAXTON, 121 Fulton st., N. Y.

BONE DUST.

FOR SALE, 5,000 bushels of bone dust, from 40 to 50 cents per bushel, according to quality.

A. B. ALLEN & Co., 189 and 191 Water st., N. Y.

CASTINGS MADE TO ORDER.

GIN-GEAR SEGMENTS, of all sizes, furnished at short notice, at low prices.

BURR MILLSTONES of any size; PATENT BURR MILLS, from 12 to 30 inches in diameter; also, Nicholls' and Marsh's Burr Mills, 12 to 30 inches in diameter.

A. B. ALLEN & CO., 189 and 191 Water street.

WHEELER'S PATENT IMPROVED PORTABLE RAIL ROAD HORSE POWER AND OVERSHOT THRASHER AND SEPARATOR.

THE advantages of the above horse powers are—1. They occupy but little more space than a single horse. 2. They can be moved by the weight of the horse only, by placing them at an angle of 10 or 15 degrees. 3. They are comparatively light and portable, and can be easily transported. 4. They are simply constructed, not liable to get out of order, and move with little friction, the revolving plane geering without any complex or intermediate wheels, directly into the pinion upon the shaft on which the pully belt runs.

The Threshers consist of a small spiked cylinder with a concave plane over it, and a level feeding table. There are several improvements in the overshot threshers. 1. They admit of a level table for feeding, thus enabling the tenders to stand erect, and control the motion of the horse and machine by means of a brake, by which accidents are avoided. 2. In consequence of the spikes lifting the straw and doing the work on the top, heavy substances such as stones, blocks &c., drop at the end of the table, and are not carried between the spikes, by which they and the machine are broken. 3. The overshot cylinder does not scatter the grain but throws it within three feet of the machine. 4. This arrangement also admits of attaching a *separator* high enough from the floor or ground to allow all the grain to fall through it, while the straw is deposited by itself in the best condition for binding. 5. Neither grain nor straw are broken by this machine. 6. The cylinder is longer, which admits of faster and more advantageous feeding; it is smaller and with fewer teeth than ordinary threshers, thus admitting of more rapid motion and faster work with less power; and the diminution of teeth in the cylinder is fully made up by those in the concave, which is stationary. 7. The separator is a great advantage in diminishing the labor of raking out the straw, as it leaves the grain in the best condition for the fanning mill. Three men, with a single power, can thresh 75 to 100 bushels of wheat or rye; or four men with a double power, 175 to 225 bushels of wheat or rye, or double that quantity of oats or buckwheat, per day. All the above are compact and can be carried where wanted complete, or they may be readily taken apart and packed for distant transportation by a wagon or otherwise.

Price of single Power,	$80
" " Thresher,	$28
" Separator and fixtures,	$7
" Bands for driving, etc.,	$5
" Sawmill, complete, and in running order,	$35

The price of the double power, thresher, separator, &c., complete, is $145, including rights of using. The above are sold singly or together as desired.

The above power is warranted to work well and give satisfaction.

Among the large number who have purchased the above-named horse powers of us, we would enumerate the following.

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A. C. Munson	" " "
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